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On some Cybalomiinae from Turkey (Lepidoptera, Pyraloidea)

Muhabbet Kemal¹ Sibel Kızıldağ Ahmet Ömer Koçak

Abstract: On some Cybalomiinae from Turkey (Lepidoptera, Pyraloidea). *Misc. Pap.* 212: 1-10, 22 figs.

In this paper, 12 species of the Cybalomiinae of Turkey are given. Faunistically new records are mentioned. Male genitalia of 5 species are illustrated. Tympanal organ of *Hyperlais argillacealis* is illustrated for the first time.

Key words: Cybalomiinae, *Cybalomia*, *Hyperlais*, *Prochoristis*, *Stiphrometasia*, *Thyridiphora*, Pyraloidea, Lepidoptera, Turkey, fauna, male genitalia, tympanal organ.

In this paper, the Cybalomiinae is represented by 12 species in Turkey. They belong to the following five genera: *Cybalomia* (1 sp.), *Hyperlais* (5 spp.), *Prochoristis* (3 spp.), *Stiphrometasia* (2 spp.), *Thyridiphora* (1 sp.). The following taxa are reported here as new for the fauna of Turkey: *Hyperlais argillacealis*, *Hyperlais elbursalis*, *Stiphrometasia monialis*. With these new records, the number of species of Pyraloidea of Turkey increased to 706 (info-system of the Cesa)².

For the explanation of the codes, *vide*: Koçak & Kemal (2019).

Cybalomia Lederer, 1863

Original reference: *Cybalomia* Lederer, 1863, Wien. ent. Monatschr. 7: 276, 420. Type-species: *Botys pentadalis* Lederer, 1855, by monotypy.

Synonymy: *Cybalomia* Lederer, 1863; #*Cybolomia* Ragonot, 1887; *Capparidia* Dumont, 1931 (Leraut, 2012: 501).

1. *Cybalomia pentadalis* (Lederer, 1855)

Synonymy: *pentadalis* Lederer, 1855

Range (as codes): GR Cr CY TR Cc LB Bei TM Kp IR Ahz Fa Shr Th Kdj Kh IQ Kbl Bgd Bsr Amr JO IL Pa Js Hf PK Sd Krc 01 07 08 30 31 33 45 46 56 76 07B 07Bb 08H 08Ha 30B 30Bt1 30Bz 31H 31K 31M 33A 33Ac 33Ak 33Am 33Ar 56F 76C

Remarks: Caradja (1916: 27) reported this species from “Kasikoparan” [Turkey, Iğdır Province, (76C)]. The authors reported this species from Hatay Province, Samandağı (31K) (Kemal & Koçak,

¹ Dr Muhabbet Kemal & Dr Sibel Kızıldağ - Van Yüzüncü Yıl University, Faculty of Science, Dept. of Biology, Campus, Van / Turkey.
e-mails: muhabbet_kemal@yahoo.com.tr & sibelkizildag@yyu.edu.tr

Corresponding author: Prof. em Dr Ahmet Ömer Koçak, c/o Yüzüncü Yıl University, Faculty of Science, Dept. of Biology, Van / Turkey.
e-mail: cesa_tr@yahoo.com.tr

We hope that this very troubled process, we are experiencing due to the coronavirus pandemic, is over as soon as possible. After this pandemic is finished in the world, we may turn to our normal life and studies.

² <http://www.cesa-tr.org/Infos.htm>

2015: 141, nr.466), from Anamur (Taşocağı) (33Ac) [İçel Province] (Kemal & Koçak, 2017: 10), and from Zap Valley (Hakkari Province, SE Turkey) (Kemal & Koçak, 2018: 186, nr.441). See below further faunistic records.

Faunistic records in Turkey:

Cybalomia pentadalis: Seebold, 1898, Dt. Ent. Z., Iris 11: 24 “Syrien” [Akbes] (31M).

Cybalomia pentadalis: Kemal, Kızıldağ & Koçak, 2020a: Priamus 19 (1): 43. Anamur (Taşocağı, Ovabaşı, Köşekbükü, Gökçe).

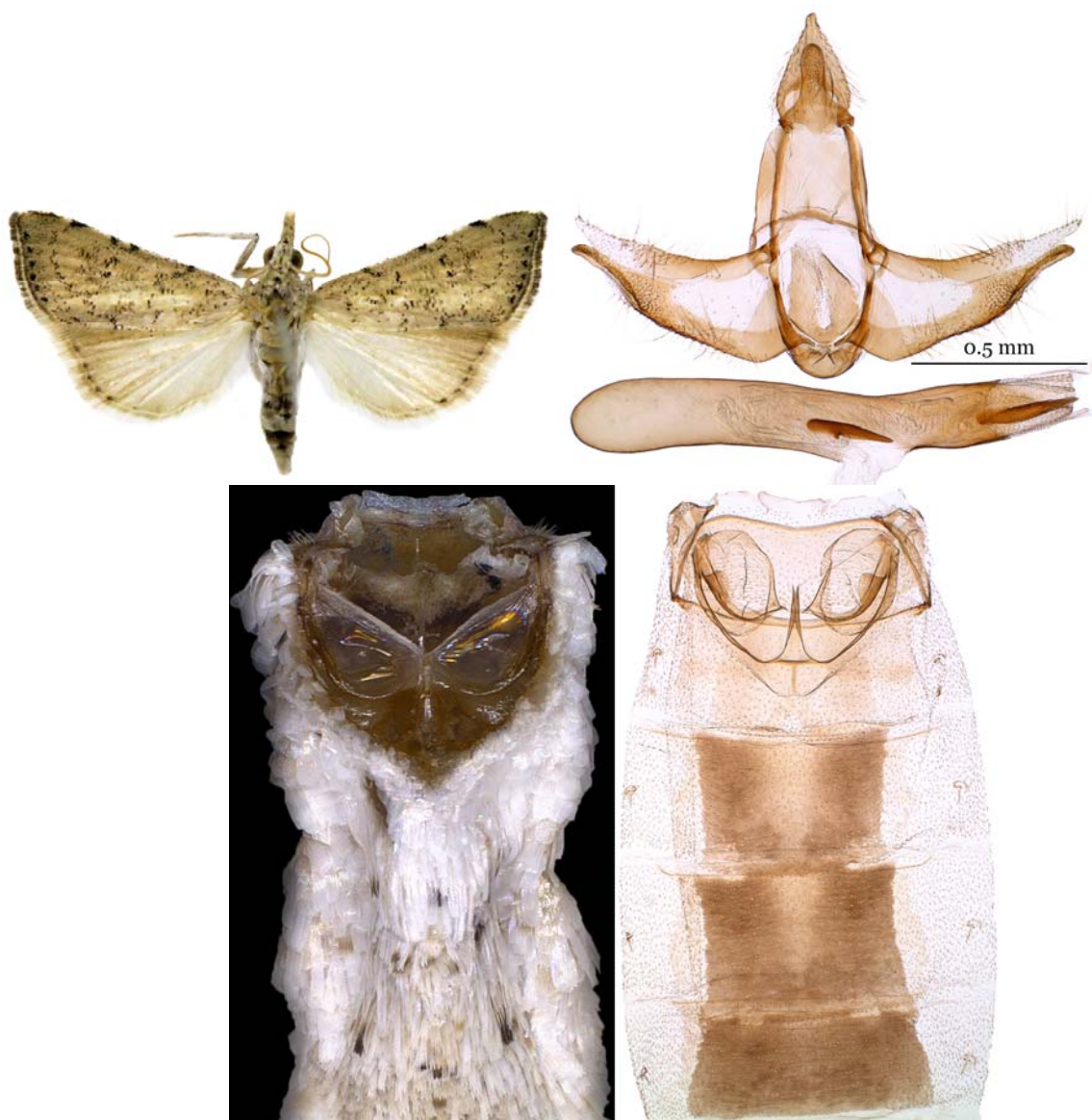
Cybalomia pentadalis: Kemal, Kızıldağ & Koçak, 2020b: Priamus 19 (2): 134, figs. Hakkari Prov., Zap Valley.

Additional material studied: 4♂. South Turkey, İçel Province, Anamur, Taşocağı 210m (33Ac), 5.viii.2019, M.Kemal & A.Koçak leg. (Cesa).

***Hyperlais* Marion, 1959**

Original reference: *Hyperlais* Marion, 1959, Alexanor 1: 105 (nom. nov. pro *Hypolais* Guenée, 1854 nec Kaup, 1829). Type-species: *Hypolais siccalis* Guenée, 1854, by subsequent designation by Marion, 1957.

Synonymy: *Hypolais* Guenée, 1854 nec Kaup, 1829; *Hyperlais* Marion, 1959; *Prolais* Amsel, 1961 (synonymy: Leraut, 2012: 490).



Figs. 1-4 - *Hyperlais argillacealis*. Upperside of the male. Male genitalia (GP3219). South Turkey, İçel Province, Anamur. M. Kemal (Cesa)

2. *Hyperlais argillacealis* (Zeller, 1847)**(Figs. 1-4)**Synonymy: *argillacealis* Zeller, 1847Range (as codes): **Si YU GR Cr TR 33 33A 33Ac 33Ak 33An 33Ap**Remarks: The identity of this small species (wingspan 14 mm) is based on the external features and the male genitalia (Leraut, 2012: fig.133a). The female genitalia is illustrated in the lepiforum.³ The male genitalia and the tympanal organ from Anamur (S. Turkey) are illustrated here.

Faunistic records in Turkey:

Hyperlais argillacealis: Kemal, Kızıldağ & Koçak, 2020a: Priamus 19 (1): 45. Anamur.Material studied: 4♂ (GP3219). South Turkey, **İçel** Province, Anamur, Alaköprü 105m (33Ak), 8.ix.2017, M.Kemal & A.Koçak leg. - 3♂ 1♀. Anamur, Taşocağı 210m (33Ac), 5.viii.2019, M.Kemal & A.Koçak leg. - 3♂. Anamur, Uçarı 1.8km SE 430m (33Ap), 7.vi.2019, M. Kemal & A.Koçak leg. - 1♂. Anamur, Köşekbükü 150m (33An), 22.viii.2018, M. Kemal & A.Koçak leg. (Cesa).**3. *Hyperlais dulcinalis* (Treitschke, 1835)****(Figs. 5-9)**Synonymy: *dulcinalis* Treitschke, 1835; *obscura* Rothschild, 1925Range (as codes): **MA IT HU RO YU BG GR TR IR Ha Avd Kh Elb Kdj Sse LB Bsa Cc GG AZ Bjo Kir Tbl Nv Ord 05 06 13 30 44 46 65 70 71 76 05A 06R 13F 13F71 30B 30Bt1 30Bz 30D 30Df 44E 44Ei 65A 65Am 65Am1 65D 65Dg 65F 65Fr 65G 65Gf 65Gy 65L 65Lb 65Le 65N 65Np 65Np1 65Np2 65Np6 65Nm 76B 76Bb 76C**

Remarks:

Faunistic records in Turkey:

Hyperlais dulcinalis: Kemal, Koçak & Uçak, 2018, Priamus 16 (2): 52. Van, Edremit: Elmalık.*Hyperlais dulcinalis*: Kemal, Kızıldağ & Koçak, 2020b: Priamus 19 (2): 137. Hakkari Prov., Zap Valley.Material studied: 1♂. East Turkey, **Van** Province, Gevaş, Altınsaç 1800m (65Fb), 1.vi.2002, M.Kemal & A.Koçak leg. - 1♂. Gevaş, Kayalar 1900m (65Fr), 10.vi.2005, M.Kemal & A.Koçak leg. - 3♂. Van Province, Tuşba, Gören Mt., Ağartı 1860m (65Np1), 18.v.2014, M.Kemal & A.Koçak leg. - 4♂. Ağartı 1835m (65Np6), 30.v.2014, M.Kemal & A.Koçak leg. - 2♂ (Pyro84-DNA 658bp). Van Province, Bahcesaray, Upper Mukus Valley 1780m (65Am1), 6.vii.2016, M.Kemal & A.Koçak leg. - 1♂ (GP3221). Van Province, Edremit, Elmalık 1730m (65Le), 31.v.2017, M.Kemal *et al.* leg. - 9♂. Van Province, Gürpınar, Kuşdağı 3.4km SE 2005m (65Gf), 20.vi.2017, M.Kemal *et al.* leg. - 1♂. Van Province, Çatak, Saklıvadi 2030m (65Df), 25.vi.2017, M.Kemal *et al.* leg. - 5♂. **Iğdır** Province, Kentormanı 960m (76Bb), 9.v.2012, M.Kemal & A.Koçak leg. - 1♂. SE Turkey, **Hakkari** Province, Yüksekova, Dağlıca 2085m (30Df), 22.vi.2017, H.Uçak leg. - 1♂. Hakkari, Zap Valley, Sulphur valley 1570m (30Bt1), 18.vi.2017, M.Kemal & A.Koçak leg. - 4♂. East Turkey, **Bitlis** Province, Mutki Aydemir 1710m (13F71), 11.vi.2018, M.Kemal & A.Koçak leg. (Cesa).**4. *Hyperlais elbursalis* (Amsel, 1961)****(Figs. 10-14)**Synonymy: *elbursalis* Amsel, 1961Range (as codes): **IR Elb Th IL Pa Hf TR 76 76D 76Dg**Material studied: 4♂ (GP3207, Pyr100-Cesa, 658bp). **Iğdır** Province, Gaziler, vic. Kula 1055m (76Dg), 6.v.2019, M. Kemal & A.Koçak leg. (Cesa).

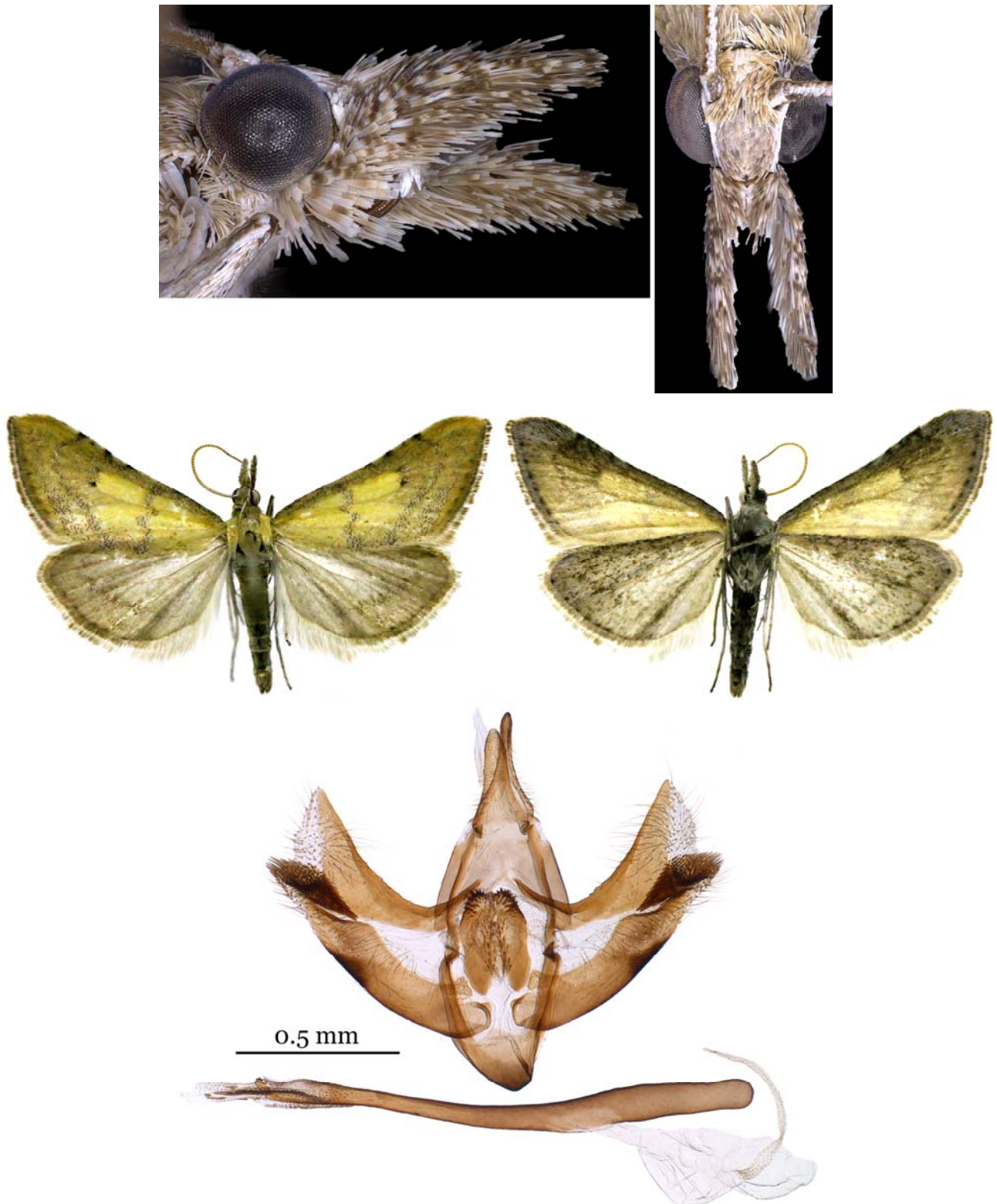
Remarks: The male genitalia was also illustrated by Leraut (2012: 496, fig.134b). The dissected specimen is also barcoded. The present record is new for the fauna of Turkey.

5. *Hyperlais lutosalis* (Mann, 1862)Synonymy: *lutosalis* Mann, 1862; *biskralis* Chrétien, 1911; *nigralis* Caradja, 1916; *tunesalis* Caradja, 1916; *claralis* Caradja, 1916; *cruzae* Agenjo, 1952Range (as codes): **DZ Bsk TN Gf ES Alm An Mu Sa HV Sao TR Ui Ku 16 16A**Faunistic record in Turkey: *Botys lutosalis* Mann, 1862, Wien. ent. Montschr. 6: 386, Taf.3 fig.6♂.

Bursa & Spalato.

Remarks: This species was reported by Mann (1862) from Bursa [16A] of the syntypes in his original description. We have no specimen of this species in our collection.

³ http://www.lepiforum.de/lepiwiki.pl?Hyperlais_Argillacealis [accessed on 23.1.2020]



Figs. 5-9 - *Hyperlais dulcinalis*. Head (top): Lateral and dorsal view. Upperside and underside of the male (middle). Male genitalia (GP3221) (bottom). East Turkey, Van Province, Edremit, Elmalık (65Le). M. Kemal (Cesa)

6. *Hyperlais nemausalis* (Duponchel, [1834])

Synonymy: *nemausalis* Duponchel, [1834]

Range (as codes): **ZR TN ES Grn FR IT MT GR Cr TR 16 42 45 16A 42B**

Faunistic records in Turkey:

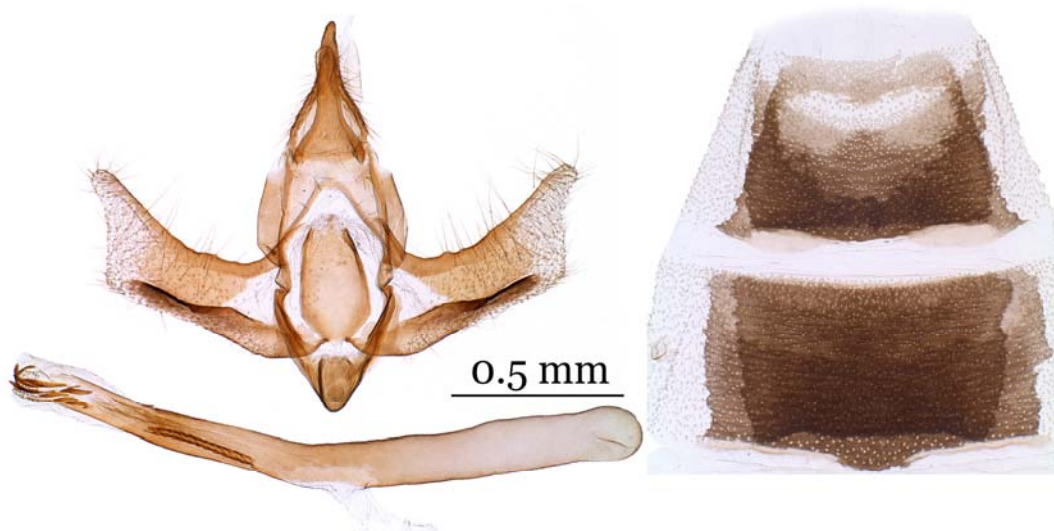
Cybolomia [sic] *nemausalis*: Zukowsky, 1941. Ent. Z. 54: 272. Akşehir.

***Hyperlais siccalis* (Gn).**

Remarks: This species was mentioned by Caradja (1916:27) from “Hadjin” [Adana Province, Saimbeyli] with the information: “ein grosses ♂ mit rauchbraunen Hfln; auch die Vfl sind recht dunkel”. The species *siccalis* is currently known only from Spain, France, and Italy. Therefore, this identification seems to be incorrect.



Figs. 10-12 – *Hyperlais elbursalis*. Head of male (lateral and frontal view) (top). Upperside of male (bottom). Turkey, Iğdır Province, Gaziler. For its genitalia (GP3207), see below. M. Kemal (Cesa)



Figs. 13, 14 – *Hyperlais elbursalis*. Male genitalia and terminal abdominal segments (GP3207). M. Kemal (Cesa)

***Prochoristis* Meyrick, 1890**

Prochoristis Meyrick, 1890, Trans. ent. Soc. London 1890: 438, 459. Type-species: *Botys rupicapralis* Lederer, 1855, by subsequent designation by Hampson, 1899.
Synonymy: *Prochoristis* Meyrick, 1890; #*Prochoridis* Leraut, 2012

The identities of the following species are temporary.

7. *Prochoristis capparidis* (Christoph, 1877) (Figs. 15-18)

Synonymy: *capparidis* Christoph, 1877; *daghestanica* Christoph, 1877; *malekalis* Amsel, 1961 (synonymized by Leraut (2012: 502), validated by Bauer *et al.* in Globiz⁴).

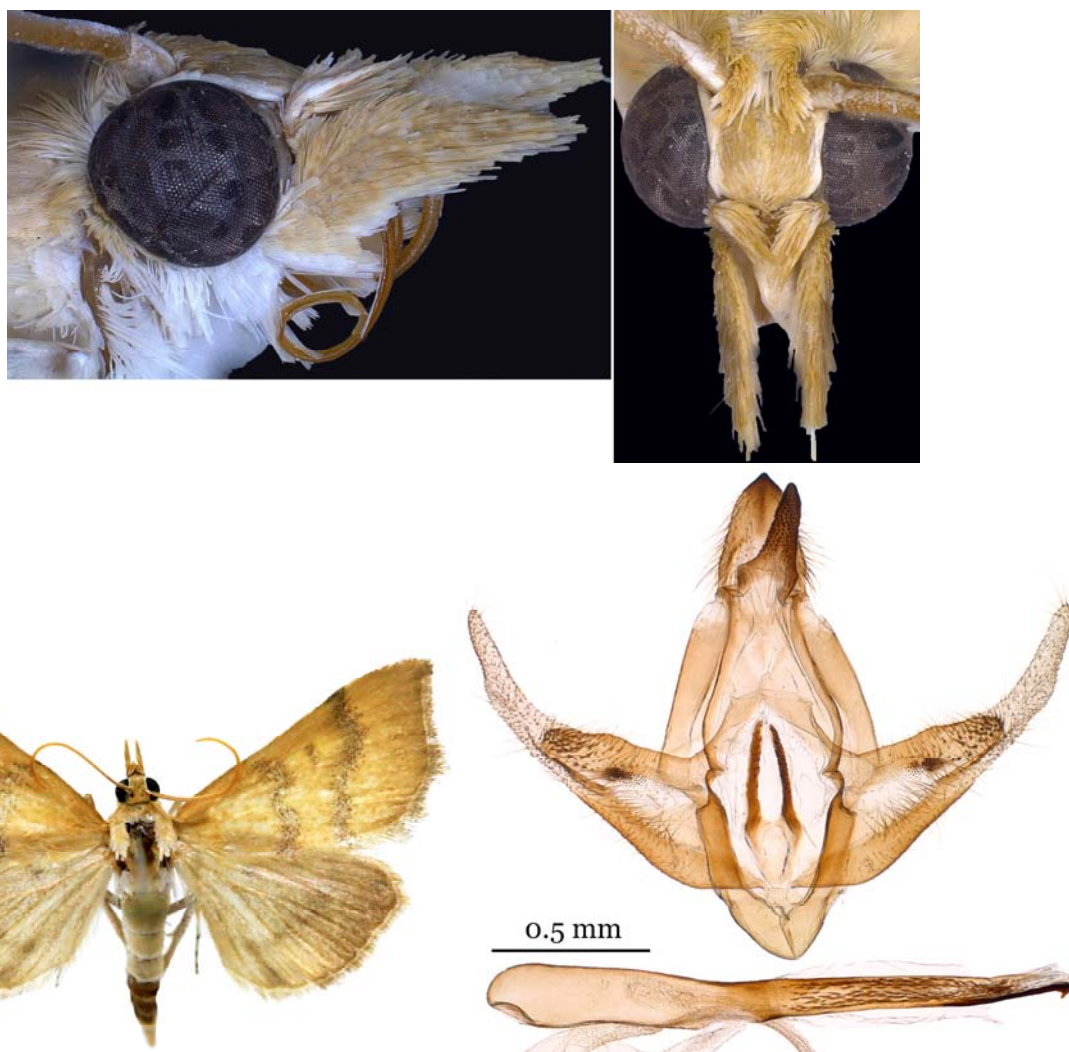
Range (as codes): IR Th Elb Kdj Se TM Kp TR Cc RU Da 30 36 63 76 30B 30Bt1 30Bz 36D 36Db 63D 63Dd 76 76C 76D 76Do

Remarks: The illustrations of external morphology of the adults given in the original description are not sufficient for the identification of this species. Caradja (1916:28) recorded this species from “Kasikoparan”. In some digital media, *capparidis* is considered as junior synonym of *rupicapralis* Led. For further information, *vide*: Nuss’s comment below.

Faunistic records in Turkey:

Prochoristis capparidis: Kemal, Kızıldağ & Koçak, 2020b: Priamus 19 (2): 139, figs. Hakkari Prov., Zap Valley.

Material studied: 2♀. SE Turkey, **Şanlıurfa** Province, Ceylanpınar, 1.köprü 375m (63Dd), 27.v.2008, M.Kemal & A.Koçak leg. - 1♀ (Pyro89-DNA 658bp). NE Turkey, **Kars** Province, Kağızman, Akçay 1200m (36Db), 10.vii.2007, M.Kemal & A.Koçak leg. - 2♂. SE Turkey, **Hakkari** Province, Işıklar 3km S 1540m (30Bt1), heliophil, 8.vii.2017, A.Koçak leg. - 16♂♀. Hakkari Province, Zap Valley, Sulphur valley 1570-1620m (30Bt1), 8.vii.2018, nocturnal, M.Kemal & A.Koçak leg. - 2♂. NE Turkey, **Iğdır** Province, Tuzluca 4.8km E Ağabey 995m (76Do), 24.vi.2019, M.Kemal & A.Koçak leg. (Cesa).



Figs. 15 - 18 – *Prochoristis capparidis*. Lateral and dorsal views of the head. Upperside of the male, and the male genitalia (GP3222). M. Kemal (Cesa).

⁴ <http://globiz.pyraloidea.org/Pages/Reports/TaxonReport.aspx?ReturnUrl=%2fPages%2fReports%2fTaxonomyReport.aspx> [accessed on 15 Febr., 2020]

8. *Prochoristis crudalis* (Lederer, 1863)Synonymy: *crudalis* Lederer, 1863

Range (as codes): Cr SY CY TR 33 33A 33Am

Remarks: The species was described by Lederer as “*Botys crudalis*” from “Syrien” (Lederer, 1863: 372, 468, Taf. 10, fig.5). Male genitalia of it is illustrated by Leraut (2012: fig. 141b). The validity of this species is unclear. Not only the genus *Prochoristis*, but also the whole Cybalomiinae needs a revision (comment by M.Nuss in 2012; published in Lepiforum).⁵ The specimen from İçel Province (Anamur, Ovabaşı 2km W [33Am]) belongs perhaps to this species.

9. *Prochoristis rupicapralis* (Lederer, 1855) (Figs. 19-22)Synonymy: *rupicapralis* Lederer, 1855

Range (as codes): IL Pa Hf CY LB Bei TM Kp AF Hr TR IQ Mos Kbl Rwz SY IR Fa Shr Ss Sse Mia AE 05 33 05A 33A 33Ac

Faunistic records in Turkey:

Prochoristis rupicapralis: Kemal, Kızıldağ & Koçak, 2020a: Priamus 19 (1): 50. Anamur.

Remarks: This species was described from “Beirut” (leg. Kindermann) from “Libanon” in “Klein-Asien” as “*Botys rupicapralis*” (Lederer (1855: 218-219, Taf.3 fig.12). Caradja (1916:28) recorded this species from “Amasia”. Previous records of this species from Turkey needs confirmations: Hakkari Province (Zap valley) [30Bz], Kars Province (Akçay) [36Db], and Şanlıurfa Province (Ceylanpınar, Kızıltepe 1.köprü [63Dd]) (Kemal & Koçak, 2018: 190, nr.478).

Material studied: 1♂ (GP3223; barcoded as Pyro88-Cesa, 658bp). South Turkey, İçel Province, Anamur, Taşocağı 210m (33Ac), 4.vi.2019, M. Kemal & A.Koçak leg. (Cesa). The identity of this species is based on the male genitalia illustrated by Leraut (2012: fig. 141a) and needed also confirmation.

***Stiphrometasia* Zerny, 1914**

Stiphrometasia Zerny, 1914, Annln. naturh. Mus. Wien 28: 331. Type-species: *Botys monialis* Erschoff, 1872, by original designation.

Synonymy: *Stiphrometasia* Zerny, 1914

This genus is currently represented by 6 species (Nuss *et al.*, 2003–2020). Among them, *alba* and *monialis* (present record) are found in Turkey.

10. *Stiphrometasia alba* Caradja, 1916Synonymy: *alba* Caradja, 1916

Range (as codes): IL Pa JO TR IQ Kbl Rwz IR Ahz Fa Shr 02 21 46 47 56 63 02A 21N 21Nb 47B 47E 56C 56Ca 56F 56Fa 56Fi 56Fö 63C 63G

Remarks: The name *alba* was described by Caradja (1916, *Dt. ent. Z., Iris* 30: 31. Syntypes 3♂ 5♀: [Türkei]: "Mardin"; "Jordanthal"), and considered in the past as junior synonym of *sancta* Hampson. Currently, *alba* Caradja is treated as a valid name of a distinct species. It was reported as “*Stiphrometasia sancta*” and as a pest of *Capparis ovata* (Capparidaceae) from SE Turkey (Gözüağık & Seven Çalışkan, 2017). The genus *Capparis* was previously reported as larval food of *Stiphrometasia petryi*.⁶

Faunistic records in Turkey:

Snellenia alba: Osthelder, 1934, *Mitt. münch. ent. Ges.* 24: 100. Maraş.*Stiphrometasia sancta*: Koçak & Kemal, 2009. *Priamus* Suppl. 17: 215. Kahramanmaraş, Mardin, Siirt.*Stiphrometasia sancta*: Gözüağık & Seven Çalışkan, 2017, *J. ent. Res. Soc.* 19 (3): 2 Adıyaman, Mardin, Şanlıurfa.

Material studied: 1♂. SE Turkey, Siirt Province, Şirvan, Tomdere 640m (56Fö), 31.v.2013, M. Kemal & A.Koçak leg. (Cesa).

Remarks: This species was previously recorded by the authors from Kurtalan, Şirvan and Tangoli (Siirt Province).

⁵ http://www.lepiforum.de/lepiwiki.pl?Prochoristis_Crudalis⁶ <https://www.nhm.ac.uk/our-science/data/hostplants/search/list.dsml?searchPageURL=index.dsml&Familyqtype=starts+with&Family=&PFamilyqtype=starts+with&PFamily=&Genusqtype=starts+with&Genus=Stiphrometasia&PGenusqtype=starts+with&PGenus=&Speciesqtype=starts+with&Species=&PSpeciesqtype=starts+with&PSpecies=&Country=&sort=Family> [last access on 23.1.2020]



Figs. 19 - 22– *Prochoristis rupicapralis* Fronto-lateral and dorsal views of the head. Upperside of the male, and the male genitalia (GP3223). İçel Province, Anamur, Taşocağı. M. Kemal (Cesa).

11. *Stiphrometasia monialis* (Erschoff, 1872)

Synonymy: *monialis* Erschoff, 1872

Range (as code): TR IR Ab Khy Fa Bu Shr Th Kdj Gl Ss Srw PK Ch Gg Cls AF Hr UZ Smk TM IQ IN AE 76 76D 76Do
Material studied: 1♀. NE Turkey, **Iğdır** Province, Tuzluca, 4.8km E of Ağabey 995m (76Do), nocturnal, 24.vi.2019, M. Kemal & A.Koçak leg. (Cesa).

Remarks: This species was illustrated by the author from North Pakistan (Koçak & Kemal, 2012b). This record is new for the fauna of Turkey. The female from Iğdır fits well to the Pakistani specimens (coll. Cesa).

Thyridiphora W. Warren, 1888

Thyridiphora W. Warren, 1888, Proc. zool. Soc. Lond. 1888: 310-311. Type-species:

Thyridiphora fenestrata W. Warren, 1888, by monotypy.

Synonymy: *Thyridiphora* W. Warren, 1888; #*Thyridiphora* Hampson, 1896

12. *Thyridiphora furia* (Swinhoe, 1884) ⁷

Synonymy: *furia* Swinhoe, 1884; *fenestrata* W. Warren, 1888; *cineracealis* Joannis, 1889

Range (as code): GR TR LB Bei IQ Rwz Kbl PK Pj Cp Krc Gg Cls IR Elb Th Kdj Fa Shr Chh Ss Ana Ke YE Ad o1 o7 33 36 46 o7B o7Bb 33A 33Aj 33Ak 33An 33Ar 36D 36Db

Remarks: This species was originally described from Karachi (Pakistan). It was reported by the authors from Pakistan (Koçak & Kemal, 2014: 74, nr.1325). Besides, a genitalic preparation by the author from Antalya Prov., Alanya, Kargıcak (o7Bb) [S. Turkey] (GP816♂).

Faunistic records in Turkey:

Thyridiphora furia: Kemal, Kızıldağ & Koçak, 2020a: Priamus 19 (1): 53. Anamur.

Material studied: 1♂1♀. South Turkey, **Antalya** Province, Alanya, Kargıcak 100m (o7Bb), 18.viii.1985, A. Koçak leg. - 7♂♀. **İçel** Province, Anamur, Alaköprü 105m (33Ak), 8.ix.2017, M. Kemal & A. Koçak leg. - 1♂. Anamur, Köşekbükü 145m (33An), 18.vii.2018, M. Kemal & A. Koçak leg. - 10♂♀. Anamur, Gökçe valley, quarry 170m (33Ar), 4.viii.2019, M. Kemal & A. Koçak leg. (Cesa).

⁷ The name *grisea* described by Amsel (1968) from Karachi (Pakistan) was synonymized by Sattler (1969) mercilessly. However, *grisea* is considered currently as a valid name in this genus (Nuss *et al.*, 2003-2020).

Amsel, H.G., 1968. Zur Kenntnis der Microlepidopterenfauna von Karachi (Pakistan).— *Stuttg. Beitr. Naturk.*, 191: 1-48. – Sattler, K., 1969. Bemerkungen zur Microlepidopterenfauna von Karachi (Pakistan). *Z. ArbGem. Öst. Ent.* 21: 99-102.

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Late spring Lepidoptera aspect of NW Gören Mt. (Van Province, East Turkey)

Muhabbet Kemal⁸ Ahmet Ömer Koçak

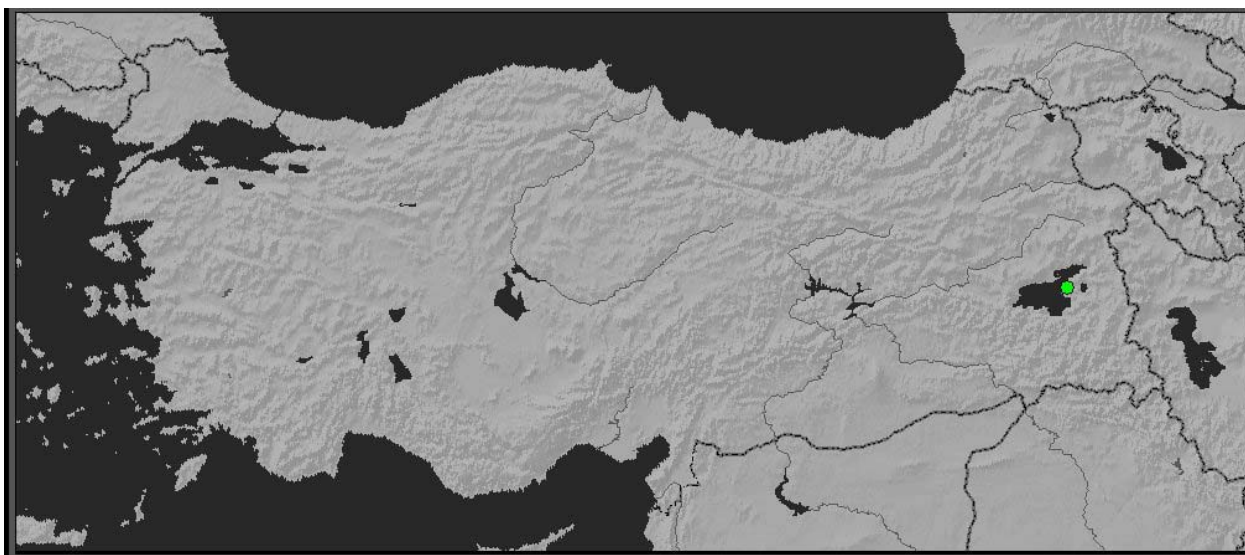
Abstract: Late spring Lepidoptera aspect of NW Gören Mt. (Van Province, East Turkey). *Misc. Pap.* 212: 11-30, 37 figs. 2 map

In this paper 71 species of Lepidoptera are reported from Gören Mt. with some remarks. The materials were collected in late spring of this year. New faunistic records, illustrations of the genitalia and adults of some species are added. New faunistic information and illustrations of *Tineola biselliella* are given separately with some discussions.

Key words: Lepidoptera, fauna, Gören Mt. Van, Turkey.

Due to the Corona Pandemic, all kind of vital and scientific activities are prohibited. For that reason, we found opportunities in the spring season for the field studies at the vicinity of Özyurt village, NW Gören Mt. (Map 1). On 21.v.2020 and 28.v.2020, light traps were placed at the vicinity of Özyurt and Dağönü villages. On 13.v.2020 and 1.vi.2020 observations and collectings were made by day at the same places. Currently, the total number of the identified Lepidoptera species of Gören Mount raised to 401. Previously, the authors published a comprehensive list of the Pterygota fauna of Gören Mt. (Kemal & Koçak, 2014).

It is planned to prepare DNA barcodes of Lepidoptera species living in this region. For this purpose, the following species have been studied so far (all of them 658bp): *Arctia villica* ssp. *marchandi* (Kızıldağ *et al.*, 2019), *Pleurota uygar*, *Rhodostrophia bahara*, *Rhodostrophia terrestraria*, *Rhodostrophia auctata*, *Polyommatus daphnis*, *Ephestia freda* (Kemal *et al.*, 2020b), and *Crioceris* sp.



Map 1 - Locality of Gören Mt., Van Province, East Turkey.

⁸ Dr Muhabbet Kemal - Van Yüzüncü Yıl University, Faculty of Science, Dept. of Biology, Campus, Van / Turkey.
e-mails: muhabbet_kemal@yahoo.com.tr -Corresponding author: Prof. em Dr Ahmet Ömer Koçak, c/o Yüzüncü Yıl University, Faculty of Science, Dept. of Biology, Van / Turkey. e-mail: cesa_tr@yahoo.com.tr

We hope that this very troubled process, we are experiencing due to the coronavirus pandemic, is over as soon as possible. After this pandemic is finished in the world, we may turn to our normal life and studies.

The Lepidoptera fauna of this mountain seems very interesting. In 2017, the authors described a new species of the genus *Pleurota* Hbn. in Van Province. This species is found here common in the late spring, and early summer. In fact the preliminary investigations on the genus *Pleurota* has begun with the paper in 2018 (Kemal *et al.*, 2018). Kızıldağ *et al.*, (2019) evaluated *marchandi* populations of SE Turkey, including from Gören Mt. from the molecular standpoint. Similarly, a new *Scotopteryx* species was described by the authors at the top of this mount (Kemal *et al.*, 2020a).

In the present paper, 71 species of 19 families are given in an annotated list with their original references, material information and some remarks.

Annotated list of the species recorded

Butterflies

Hesperiidae

1. *Pyrgus sidae* (Esper,[1784])

Original reference: *Papilio sidae* Esper,[1784], Die Schmett. 1(2): 178, pl.90 fig.3. Syntypes: Russia: Wolga.

Material studied: 1♂. Van Province, Tuşba, Gören Mt. NW Dağönü 1740m (65Nu), heliophil, 1.vi.2020, M. Kemal & A.Koçak leg. (Cesa)

Lycaenidae

2. *Cupido (s.str.) osiris* (Meigen,[1829]) (Fig.1)

Original reference: *Polyommatus osiris* Meigen,[1829], Syst. Besch. eur. Schmett. 2:7, pl.46, figs. 3a,b.

Material studied: 5♂1♀. Van Province, Tuşba, Gören Mt. NW Dağönü 1740m (65Nu), heliophil, 1.vi.2020, M. Kemal & A.Koçak leg. (Cesa)

3. *Glaucopsyche (s.str.) alexis* (Poda,1761)

Original reference: *Papilio alexis* Poda,1761, Insecta Musei Graecensis.:77. Type(s): [Austria]: Steiermark.

Material studied: 1♂. Van Province, Tuşba, Gören Mt. NW Dağönü 1740m (65Nu), heliophil, 1.vi.2020, M. Kemal & A.Koçak leg. - 1♂2♀. Tuşba, Gören Mt. NW Özyurt 1690m (65No), heliophil, 1.vi.2020, M. Kemal & A.Koçak leg. (Cesa)

4. *Plebejus (Plebejides) zephyrinus* (Christoph,1884) (Fig.2)

Original reference: *Lycaena zephyrus* var. *zephyrinus* Christoph,1884, [in] Romanoff, Mém. Lépid. 1: 102. Syntypes: [Turkmenistan]: Ashkhabad.

Material studied: 3♂3♀. Van Province, Tuşba, Gören Mt. NW Dağönü 1740m (65Nu), heliophil, 1.vi.2020, M. Kemal & A.Koçak leg. - 4♂3♀. Tuşba, Gören Mt. NW Özyurt 1690m (65No), heliophil, 1.vi.2020, M. Kemal & A.Koçak leg. (Cesa)

5. *Polyommatus (s.str. (Plebicula)) amandus* (Schneider,1792) (Fig.3)

Original reference: *Papilio amandus* Schneider,1792, Neuestes Mag. 4: 428. Type(s): Sweden.

Material studied: 2♂. Van Province, Tuşba, Gören Mt. NW Dağönü 1740m (65Nu), heliophil, 1.vi.2020, M. Kemal & A.Koçak leg. (Cesa)

6. *Polyommatus (s.str.) icarus* (Rottemburg,1775)

Original reference: *Papilio icarus* Rottemburg,1775, Naturforscher 6: 21. Type(s): Saxonia.

Material studied: 1♂. Van Province, Tuşba, Gören Mt. NW Dağönü 1740m (65Nu), heliophil, 1.vi.2020, M. Kemal & A.Koçak leg. (Cesa)



Figs. 1, 2 - *Cupido osiris* male during feeding (left). *Plebejus zephyrinus* female (right). Both from Dağönü 1740m, 1.vi.2020. M. Kemal (Cesa)

7. *Pseudophilotes vicrama* (Moore,1865)

Original reference: *Polyommatus vicrama* Moore,1865, Proc. zool. Soc. London 35: 505, pl.31, fig.6. Syntypes: Tibet: Shipkee; [India]: Middle Kunawur: Cheeni.

Material studied: 1♂. Van Province, Tuşba, Gören Mt. NW Özyurt 1690m (65No), heliophil, 1.vi.2020, M. Kemal & A.Koçak leg. (Cesa)

8. *Tomares callimachus* (Eversmann,1848) (Fig. 4)

Original reference: *Lycaena callimachus* Eversmann,1848, Bull. Soc. Nat. Moscou 21: 208. Syntypes: Russia: Wolga, Ural; [Azerbaijan]: "Helenendorf" [Kirovabad].



Figs. 3, 4 – *Polyommatus amandus* male during basking. Dağönü 1740m, 1.vi.2020 (left). *Tomares callimachus*. During feeding on *Geranium* flower. Özyurt 1690m, 13.v.2020 (right). M. Kemal (Cesa).

Papilionidae

9. *Archon apollinaris* (Staudinger,[1892])

Original reference: *Doritis apollinus* var. *apollinaris* Staudinger,[1892], Dt. ent. Z., Iris 4: 225. Syntypes: [Türkei: Erzincan Prov.]: nordöstlichen Kleinasien: Goman Otti, 1500m., lectotype designated by Wagener (1995).

10. *Zerynthia (Allancastris) deyrollei* (Oberthür,1869)

Original Reference: *Thais deyrollei* Oberthür,1869, Pet. Nouv. Ent. (2):7. Syntypes: [Turquie]: Alpes-Pontiques [Gümüşhane].

Remarks: Observed on 1.vi.2020 around Ağartı village. This vernal species flies in this area until July.

Pieridae**11. *Gonepteryx (s.str.) rhamni* (Linnaeus,1758)**

Original reference: *Papilio rhamni* Linnaeus,1758, Syst. Nat. (Edn.10) 1: 470. Syntypes: Europe, Africa.

Remarks: Observed around Ağartı village.

12. *Leptidea duponcheli* (Staudinger,1871)

Original reference: *Leucophasia duponcheli* Staudinger,1871, Cat. Lepid. Eur. Faunengeb. (2): 5. Syntypes: [France]: Gallia mer., Pedemont; [Turkey]: Bithynia, Pontus.

Material studied: 1♂. Van Province, Tuşba, Gören Mt. NW Dağönü 1740m (65Nu), heliophil, 1.vi.2020, M. Kemal & A.Koçak leg. (Cesa)

13. *Pontia edusa* (Fabricius,1777)

Original reference: *Papilio edusa* Fabricius,1777, Genera Insectorum: 255. Type(s): [Deutschland]: Chilonii.

Material studied: 1♀. Van Province, Tuşba, Gören Mt. NW Özyurt 1690m (65No), heliophil, 1.vi.2020, M. Kemal & A.Koçak leg. (Cesa)

14. *Zegris eupheme* (Esper,[1804])

Original reference: *Papilio eupheme* Esper,[1804], Die Schmett.(Suppl.) 1(1):105, pl.113, figs.2,3. Syntypes: [Ukraine]: "Gegend Sewastopol in Taurien".

Remarks: This species was observed at Özyurt 1690m on 1.vi.2020. New record for Gören Mt.

Satyridae**15. *Coenonympha (s.str.) pamphilus* (Linnaeus,1758)**

Original reference: *Papilio pamphilus* Linnaeus,1758, Syst. Nat. (Edn.10) 1: 472. Type(s): Suecia.

Material studied: 1♂. Van Province, Tuşba, Gören Mt. NW Dağönü 1740m (65Nu), heliophil, 1.vi.2020, M. Kemal & A.Koçak leg. - 2♂. Tuşba, Gören Mt. NW Özyurt 1690m (65No), heliophil, 1.vi.2020, M. Kemal & A.Koçak leg. (Cesa)

Remarks: Perhaps the commonest butterfly species in the studying area, sympatric with *zephyrinus* and *osiris*.

16. *Lasiommata megera* (Linnaeus,1767)

Original reference: *Papilio megera* Linnaeus,1767, Syst. Nat. (Edn.12) 1(2): 771, nr.142.

Material studied: 1♀. Van Province, Tuşba, Gören Mt. NW Dağönü 1740m (65Nu), heliophil, 1.vi.2020, M. Kemal & A.Koçak leg. (Cesa)

Moths**Arctiidae****17. *Ocnogyna (s.str.) loewii* (Zeller,1846)****(Figs. 5,6)**

Original reference: *Trichosoma löwii* Zeller,1846, Stettin ent. Ztg. 7: 9-11. Type ♀: [Türkei: Antalya Prov., Döşemealtı]: "in Kleinasien unterhalb Istenas in einem Thale".

Remarks: Caterpillars of this species are frequently observed in the spring in swarms. Adult moths fly in autumn.

Douglasiidae

18. *Tinagma anchusellum* (Benander,1936)

Original reference: *Douglasia anchusella* Benander,1936, Opusc. Ent. 1: 51-53, figs. 1e.
Type: Sweden: Vickelby auf Öland (Coll. Benander).

Material studied: 3 ex. Van Province, Tuşba, Gören Mt. NW Özyurt 1690m (65No), nocturnal, 28.v.2020, M. Kemal & A.Koçak leg. (Cesa)



Figs. 5, 6 - *Ocnogyna loewii*. Caterpillars on *Centaurea behen*. Gören Mt., Özyurt 1690m, 21.v.2020. M. Kemal (Cesa).

Drepanidae

19. *Cilix asiatica* A.Bang-Haas,1907

Original reference: *Cilix glaucata* var. *asiatica* A.Bang-Haas,1907, Dt. ent. Z., Iris 20: 70.
Syntypes: [Türkei]: "Klein-Asien: Syrien: Mardin, Amasia".

Material studied: 1♂. Van Province, Tuşba, Gören Mt. NW Özyurt 1690m (65No), nocturnal, 28.v.2020, M. Kemal & A.Koçak leg. (Cesa)

Elachistidae

20. *Elachista* sp.

Material: 1ex. Van Province, Tuşba, Gören Mt. NW Özyurt 1690m (65No), nocturnal, 28.v.2020, M. Kemal & A.Koçak leg. (Cesa)

Gelechiidae

21. *Agnippe pseudolella* (Christoph,1888)

Original Reference: *Lita pseudolella* Christoph,1888, Horae Soc. ent. ross. 22: 313. Syntypes ♂♀: Russia, "Sarepta"; Lectotype ♂, Sarepta, designated by Bidzilya & Li (2010) (BMNH).

Material studied: 2♂. Van Province, Tuşba, Gören Mt. NW Özyurt 1690m (65No), 28.v.2020, M. Kemal & A.Koçak leg. (Cesa).

Remarks: This species was reported by the authors from Van Province (Kemal & Koçak, 2017a).

Geometridae

22. *Aplocera plagiata* (Linnaeus,1758)

Original reference: *Phalaena plagiata* Linnaeus,1758, Syst. Nat. (Edn.10)1: 526. Type(s): Europa.

Material studied: 2♂. Van Province, Tuşba, Gören Mt. NW Özyurt 1690m (65No), nocturnal, 21.v.2020, M. Kemal & A.Koçak leg. (Cesa)

23. *Dyscia (Calodyscia) innocentaria* (Christoph,1885)

Original reference: *Aspilates innocentaria* Christoph,1885, Mém. lepid. 2: 125, pl.6 fig.5. Lectotype ♀: Turkmenia, Achal Tekke, Nuchur, designated by Trusch & Erlacher (2002: 535) (ZISP).

Material studied: 6♂. Van Province, Tuşba, Gören Mt. NW Özyurt 1690m (65No), nocturnal, 21.v.2020, M. Kemal & A.Koçak leg. - 2♂1♀. From same place, nocturnal, 28.v.2020, M. Kemal & A.Koçak leg. (Cesa).

24. *Eupithecia breviculata* (Donzel,1837)

Original reference: *Melanthia breviculata* Donzel,1837, Annls Soc. ent. Fr. 6: 478, pl.18 fig.7. Type: France, Hyères.

Material studied: 1♂. Van Province, Tuşba, Gören Mt. NW Dağönü 1740m (65Nu), nocturnal, 21.v.2020, M. Kemal & A.Koçak leg. (Cesa)

25. *Rhodostrophia (Pydna) bahara* Brandt,1938

Original reference: *Rhodostrophia bahara* Brandt,1938, Ent. Rdsch. 55: 573, figs. 249-251. Syntypes: Iran: Chiraz & Fort Sine-Sefid.

Material studied: 1♂. Van Province, Tuşba, Gören Mt. NW Özyurt 1690m (65No), nocturnal, 21.v.2020, M. Kemal & A.Koçak leg. (Cesa)

26. *Rhodostrophia (s.str.) sieversi* (Christoph,1882)

Original reference: *Aspilates sieversi* Christoph,1882, Horae Soc. ent. ross. 17: 115. Syntypes ♂♀: [Azerbaidzhan: Nachtchivan]: Ordoubad.

Material studied: 2♂. Van Province, Tuşba, Gören Mt. NW Özyurt 1690m (65No), nocturnal, 21.v.2020, M. Kemal & A.Koçak leg. - 8♂2♀. From same place, 28.v.2020, M. Kemal & A.Koçak leg. - 1♂1♀. Van Province, Tuşba, Gören Mt. NW Dağönü 1740m (65Nu), heliophil, 1.vi.2020, M. Kemal & A.Koçak leg. (Cesa)

27. *Scopula beckeraria* (Lederer,1853)

Original reference: *Acidalia beckeraria* Lederer,1853, Verh. zool.-bot Ver. Wien 3: 258. Syntypes: [Aserbaidjan]: Elisabethpol [=Kirovabad]; [Russland]: Sarepta.

Material studied: 3♂. Van Province, Tuşba, Gören Mt. NW Özyurt 1690m (65No), nocturnal, 28.v.2020, M. Kemal & A.Koçak leg. - 2♂. From same place, 28.v.2020, M. Kemal & A.Koçak leg. (Cesa).

28. *Scotopteryx elbursica* (Bytinski-Salz & Brandt,1937)

Original reference: *Ortholitha elbursica* Bytinski-Salz & Brandt,1937, Entomologist's Rec. J. Var. 49: 12-13. Holotype ♀: Iran: Nissa.

Remarks: There are several specimens sympatric with *vicinaria* and resembling to *elbursica*. Their genetic distance will be calculated in a separate work.

29. *Scotopteryx vicina* (Duponchel,1830)

Original reference: *Eubolia vicina* Duponchel,1830, [in] Godart & Duponchel, Hist. nat. lépid. Papillons Fr. 8 81): 188, pl.182 fig.4. Syntypes ♀♀: France, Digne.

Material studied: 7♂♀. Van Province, Tuşba, Gören Mt. NW Özyurt 1690m (65No), nocturnal, 21.v.2020, M. Kemal & A.Koçak leg. (Cesa)

Lasiocampidae

30. *Chondrostega pastranum* Lederer,1858 (Fig. 7)

Original Reference: *Chondrostega pastrana* Lederer,1858, Wien. ent. Monatschr. 2: 144, Taf.2 figs. 6,7. Syntypes ♂♀: Syria: Damask; Libanon: Beirut.

Remarks: Polyphag and vernal caterpillars of *Chondrostega* are found in the steppe singly. The caterpillar, found around Özyurt, may be referred here to *pastrana* Lederer (Fig.). The last author recorded this species in the past from Beyşehir (Konya Province) (GP715♂).



Fig. 7 - *Chondrostega pastranum*. Caterpillar on *Centaurea behen*. Gören Mt. Özyurt, 13.v.2020, M. Kemal (Cesa).

Noctuidae

31. *Agrotis (s.str.) ipsilon* (Hufnagel,1766)

Original reference: *Phalaena ipsilon* Hufnagel,1766, Berl. Mag. 4 (2): 416. Type(s): [Germany]: Berlin.

Material studied: 1♂. Van Province, Tuşba, Gören Mt. NW Özyurt 1690m (65No), nocturnal, 28.v.2020, M. Kemal & A.Koçak leg. (Cesa)

32. *Agrotis (s.str.) segetum* ([Denis & Schiffermüller],1775)

Original reference: *Noctua segetum* [Denis & Schiffermüller], 1775, Ankündigung syst. Werkes Schmett. Wienergegend:81,t.1,f.3. Type(s): [Austria]: Vienna district.

Material studied: 1♂. Van Province, Tuşba, Gören Mt. NW Özyurt 1690m (65No), nocturnal, 21.v.2020, M. Kemal & A.Koçak leg. - 1♂. From same place, 28.v.2020, M. Kemal & A.Koçak leg. (Cesa)

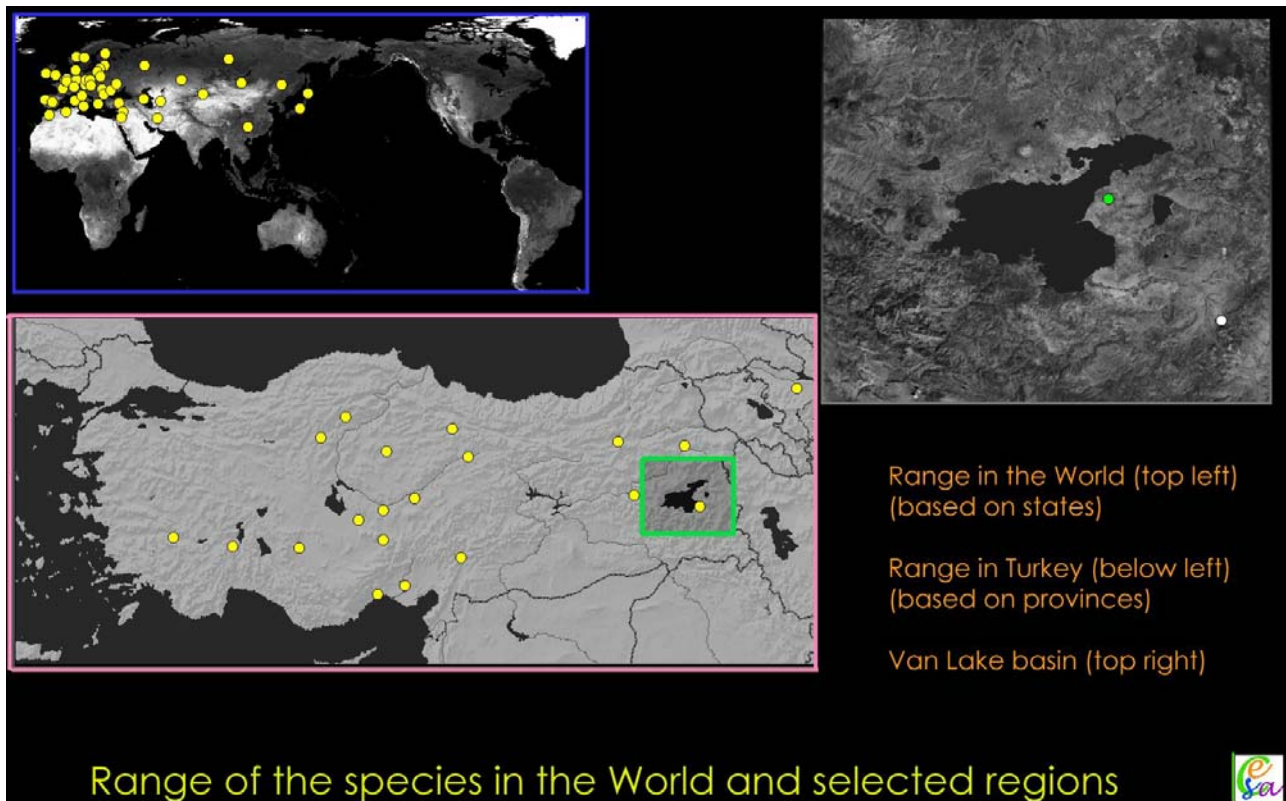
33. *Apamea anceps* ([Denis & Schiffermüller],1775) (Figs. 8-10, Map 2)

Original reference: *Noctua segetum* [Denis & Schiffermüller], 1775, Ankündigung syst. Werkes Schmett. Wienergegend:81,t.1,f.3. Type(s): [Austria]: Vienna district.

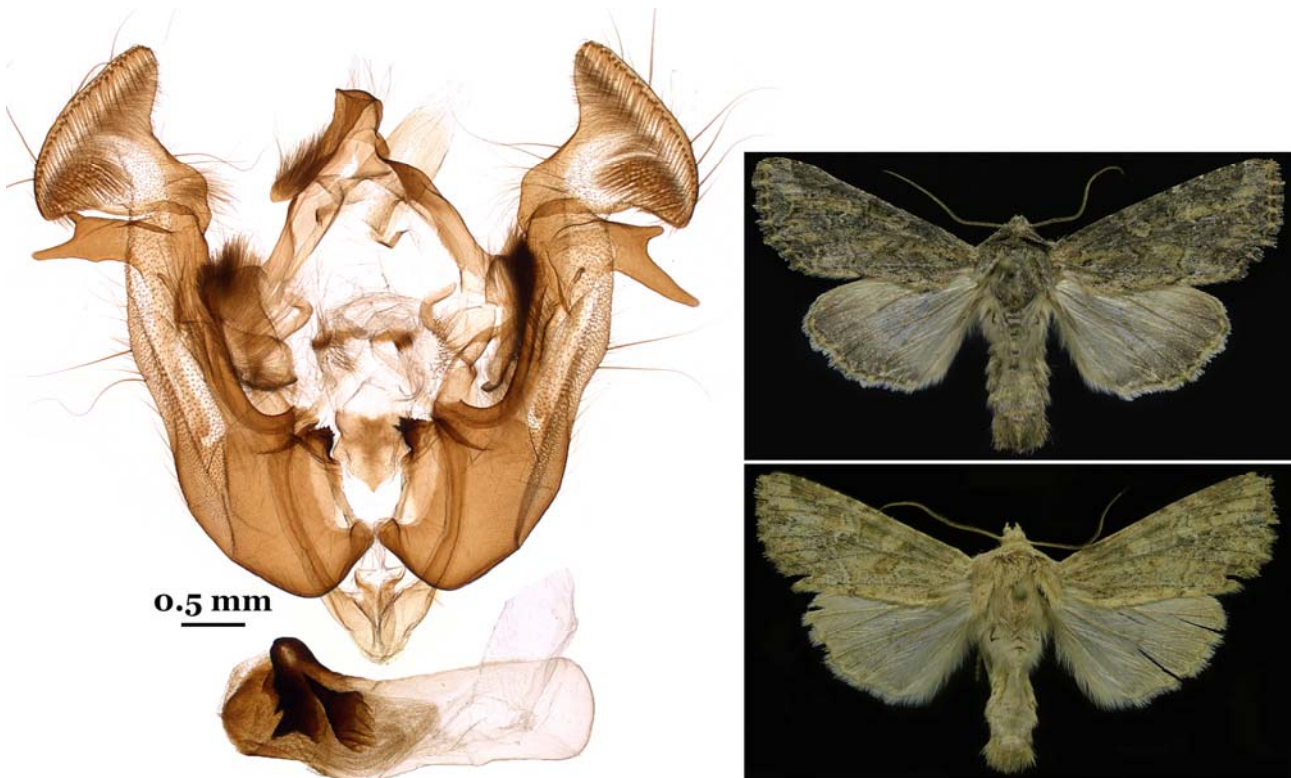
Material studied: 1♂(GP3298), 1♂(pale form f. *sassanidica*, GP3299). Van Province, Tuşba, Gören Mt. NW Özyurt 1690m (65No), nocturnal, 28.v.2020, M. Kemal & A.Koçak leg. (Cesa)

Remarks: Widely distributed species in the palaearctic Region (Map 1). Its identity is based upon the publication by Zilli *et al.* (2009). Pale form *sassanidica* Hacker,1990⁹, described from Van Province (Güzeldere Pass). Externally *anceps* and *sassanidica* show some differences especially in colouration but their genitalia are same (GP3298♂, GP3299♂). They are also sympatric at Özyurt.

⁹ *Apamea pyxina* ssp. *sassanidica* Hacker,1990, Neue ent. Nachr. 27: 463-464, Taf.6 fig.8, text-fig.31 (male genitalia).



Map 2 – *Apamea anceps*. In the map of Van Lake basin, Gören Mt. is marked by green. Hacker described ssp. *sassanidica* in the species of “*Apamea pyxina*” from Güzeldere Pass (Van Province), marked by white, which is currently considered as synonym of *Apamea anceps* (infrasubspecific).



Figs. 8-10 - *Apamea anceps*. Male genitalia (GP3298), and upperside of the typical dark form of male (top right) and pale yellowish form *sassanidica*, GP3299♂ (bottom right). Van Province, Tuşba, Özyurt. M. Kemal (Cesa).

34. *Apamea (s.str.) leucodon* (Eversmann,1837)

Original reference: *Hadena leucodon* Eversmann,1837, Bull. Soc. imp. nat. Moscou 1837: 37. Syntypes: Astrachan, Sarepta.

Material studied: 1♂. Van Province, Tuşba, Gören Mt. NW Özyurt 1690m (65No), nocturnal, 28.v.2020, M. Kemal & A.Koçak leg. (Cesa)

35. *Apamea (s.str.) lithoxylaea* (Fabricius,1787)

Original reference: *Noctua lithoxylaea* Fabricius,1787, Mant. Ins. 2: 182, nr.299. Type(s): [Wien].

Material studied: 4♂. Van Province, Tuşba, Gören Mt. NW Özyurt 1690m (65No), nocturnal, 28.v.2020, M. Kemal & A.Koçak leg. (Cesa)

36. *Apamea (s.str.) syriaca* (Osthelder,1933)

Original reference: *Parastichtis monoglyphia* ssp. *syriaca* Osthelder,1933, Mitt. münch. ent. Ges. 23: 70. Syntypes: [Türkei]: Maraş, Durnali.

Material studied: 3♂. Van Province, Tuşba, Gören Mt. NW Özyurt 1690m (65No), nocturnal, 21.v.2020, M. Kemal & A.Koçak leg. - 4♂. From same place, 28.v.2020, M. Kemal & A.Koçak leg. (Cesa).

37. *Behounekia freyeri* (Frivaldsky,1835)**(Fig.11)**

Original reference: *Xylina freyeri* Frivaldsky,1835, Tarsas Tud. Akad. Evkönyv. 2:273. Syntypes: Balkans.

Material studied: 3♂. Van Province, Tuşba, Gören Mt. NW Özyurt 1690m (65No), nocturnal, 21.v.2020, M. Kemal & A.Koçak leg. - 2♂. From same place, 28.v.2020, M. Kemal & A.Koçak leg. - 4♂. Tuşba, Gören Mt. NW Dağönü 1740m (65Nu), nocturnal, 21.v.2020, M. Kemal & A.Koçak leg. (Cesa)



Figs. 11, 12 - *Behounekia freyeri* (left). *Cleonymia opposita* (right). Both from Özyurt 1690m, 28.v.2020. M. Kemal (Cesa)

38. *Cleonymia (Serryvania) opposita* (Lederer,1870)**(Fig.12)**

Original reference: *Cleophana opposita* Lederer,1870, Annls Soc. ent. Belg. 13: 34, 47, pl. 1 fig.12. Type ♂: [Armenia]: Goektschai (Haberhauer leg.).

Material studied: 11♂. Van Province, Tuşba, Gören Mt. NW Özyurt 1690m (65No), nocturnal, 21.v.2020, M. Kemal & A.Koçak leg. - 7♂. From same place, 28.v.2020, M. Kemal & A.Koçak leg. (Cesa).

39. *Cornutiplusia circumflexa* (Linnaeus,1767)

Original reference: *Phalaena circumflexa* Linnaeus,1767, Syst. Nat. (Edn.12) 1: 844. Type(s): Europa.

Material studied: 1♂. Van Province, Tuşba, Gören Mt. NW Dağönü 1740m (65Nu), nocturnal, 21.v.2020, M. Kemal & A.Koçak leg. (Cesa)

40. *Cucullia (s.str.) argentina* (Fabricius,1787)

Original reference: *Noctua argentina* Fabricius,1787, Mant. Ins. 2: 162, nr.185. Type(s): Russia australiori.

Material studied: 1♂. Van Province, Tuşba, Gören Mt. NW Özyurt 1690m (65No), nocturnal, 28.v.2020, M. Kemal & A.Koçak leg. (Cesa)

41. *Eublemma minutatum* (Fabricius,1794)

Original reference: *Phalaena minutata* Fabricius,1794, Ent. Syst. 3 (2): 205. Type(s): Halae [Halle].

Material studied: 1♂. Van Province, Tuşba, Gören Mt. NW Özyurt 1690m (65No), nocturnal, 28.v.2020, M. Kemal & A.Koçak leg. (Cesa)

42. *Hadena (Enterpia) laudeti* (Boisduval,1840) (Figs. 13, 14)

Original reference: *Cleophana laudeti* Boisduval,1840, Genera Index Meth. Eur. Lep.: 152. Type: Valesia.

Material studied: 1♂. Van Province, Tuşba, Gören Mt. NW Özyurt 1690m (65No), nocturnal, 28.v.2020, M. Kemal & A.Koçak leg. (Cesa)

Remarks: The present specimen belongs to the subspecies *orientis* Hacker,1996, described from Hakkari (SE Turkey).



Figs. 13, 14 - *Hadena (Enterpia) laudeti* ssp. *orientis*. Upperside and underside of the male. Van Province. Tuşba, Gören Mt., Özyurt. M. Kemal (Cesa).

43. *Hadena (s.str.) magnolii* (Boisduval,1828)

Original reference: *Polia magnolii* Boisduval,1828, Eur. Lépid. Ind. Meth.: 73. Type(s): Gallia meridionalis.

Material studied: 3♂. Van Province, Tuşba, Gören Mt. NW Özyurt 1690m (65No), nocturnal, 21.v.2020, M. Kemal & A.Koçak leg. (Cesa)

44. *Hadula (Calocestra) mendax* (Staudinger,1879)

Original reference: *Hadena mendax* Staudinger,1879, Horae Soc. ent. ross. 14: 383. Syntypes: [Türkei]: Amasia; Lectotype ♂, designated by Hacker (1998: 703) (MNHU).

Material studied: 6♂. Van Province, Tuşba, Gören Mt. NW Özyurt 1690m (65No), nocturnal, 21.v.2020, M. Kemal & A.Koçak leg. - 7♂. From same place, 28.v.2020, M. Kemal & A.Koçak leg. (Cesa)

45. *Heliothis nubigera* Herrich-Schäffer,[1851]

Original reference: *Heliothis nubigera* Herrich-Schäffer,[1851], Syst. Bearb. Schmett. Eur. 2:366. Type(s): Kleinasien.

Material studied: 1♂. Van Province, Tuşba, Gören Mt. NW Özyurt 1690m (65No), nocturnal, 28.v.2020, M. Kemal & A.Koçak leg. (Cesa)

46. *Mythimna (Aletia) vitellina* (Hübner,[1808])

Original reference: *Noctua vitellina* Hübner,[1808], Samml. eur. Schmett.,Noct.2: Taf.81, fig.379. Type: [Europa].

Material studied: 1♂. Van Province, Tuşba, Gören Mt. NW Özyurt 1690m (65No), nocturnal, 21.v.2020, M. Kemal & A.Koçak leg. - 3♂. From same place, 28.v.2020, M. Kemal & A.Koçak leg. (Cesa).

47. ***Noctua (Latanocua) orbona* (Hufnagel,1766)**

Original reference: *Phalaena orbona* Hufnagel,1766, Berl. Mag. 3(3): 304. Type(s): [Germany]: Berlin.

Material studied: 1♂. Van Province, Tuşba, Gören Mt. NW Özyurt 1690m (65No), nocturnal, 28.v.2020, M. Kemal & A.Koçak leg. (Cesa)

48. ***Omphalophana antirrhinii* (Hübner,[1803])**

Original reference: *Noctua antirrhinii* Hübner,[1803], Samml. eur. Schmett., Noct. 2: Taf.52, fig.253. Type: [Europa].

Material studied: 1♂. Van Province, Tuşba, Gören Mt. NW Özyurt 1690m (65No), nocturnal, 21.v.2020, M. Kemal & A.Koçak leg. (Cesa)

49. ***Simyra dentinosa* Freyer,1839**

Original reference: *Simyra dentinosa* Freyer,1839, Neuere Beitr. Schmett. 3: 97, Tab. 263 fig.2,3. Type(s): [Türkei]: Konstantinopel [Istanbul].

Material studied: 1♂. Van Province, Tuşba, Gören Mt. NW Özyurt 1690m (65No), nocturnal, 21.v.2020, M. Kemal & A.Koçak leg. (Cesa)

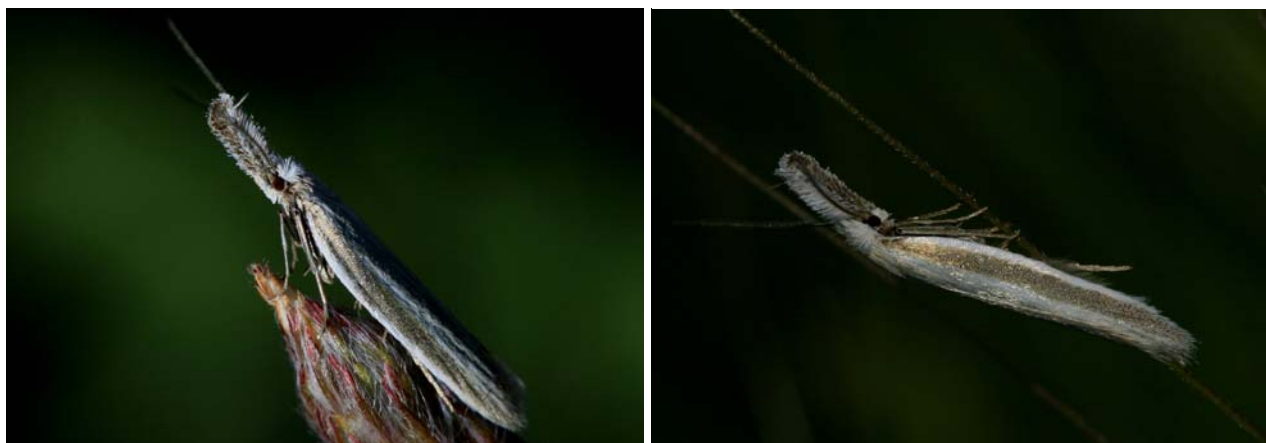
Oecophoridae

50. ***Pleurota (s.str.) uygar* Kemal & Koçak,2017 (Figs. 15, 16)**

Original reference: *Pleurota (s.str.) uygar* Kemal & Koçak,2017, Misc. Pap. 165: 2-3, figs. Holotype ♂: East Turkey, Van Province, Bahcesaray, Upper Mukus Valley 1850m (65Am3), 24.vi.2016 (coll. Cesa).

Material studied: 1♂1♀. Van Province, Tuşba, Gören Mt. NW Özyurt 1690m (65No), nocturnal, 28.v.2020, M. Kemal & A.Koçak leg. - 20♂♀. From same place, heliophil, 1.vi.2020, M. Kemal & A.Koçak leg. (Cesa)

Remarks: In the spring season, this species flies very early in the morning, and late evening before sunset, rarely attracted by the artificial light.



Figs. 15, 16 - *Pleurota uygar*. Gören Mt., Özyurt 1690m, 1.vi.2020. M. Kemal (Cesa)

Pyralidae

51. ***Chrysocrambus craterellus* (Scopoli,1763)**

Original reference: *Phalaena craterellus* Scopoli,1763, Entomologia Carniolica: 246. Type(s): [Slovenien]: Carniolia [Krain].

Material studied: 2♂. Van Province, Tuşba, Gören Mt. NW Dağönü 1740m (65Nu), heliophil, 1.vi.2020, M. Kemal & A.Koçak leg. (Cesa).

52. ***Cynaeda (s.str.) gigantea (Staudinger,1879)***

Original reference: *Odontia dentalis* v. *gigantea* Staudinger,1879, Horae Soc. ent. ross. 15: 165-166. Syntypes: [Türkei]: Amasia.

Material studied: 1♀. Van Province, Tuşba, Gören Mt. NW Özyurt 1690m (65No), nocturnal, 28.v.2020, M. Kemal & A.Koçak leg. - 1♂. From same place, 28.v.2020, M. Kemal & A.Koçak leg. (Cesa).

53. ***Epischnia* sp.**

Material studied: 2♂. Van Province, Tuşba, Gören Mt. NW Özyurt 1690m (65No), nocturnal, 28.v.2020, M. Kemal & A.Koçak leg. (Cesa).

Remarks: *Epischnia* in the Cesa Collection will be separately studied.

54. ***Megasia (s.str.) kocaki Akın,2016***

Original reference: *Megasia kocaki* Akın,2016, Zool. Middle East 62 (1): 1-3. Holotype ♂. Turkey, Bitlis Province, Mutki, Yeniköy 1650m, 18.v.2012, leg. & coll. K.Akın.

All the material in the collection: 1♂ (GP2045). East Turkey, **Van** Province, Tuşba, Gören Mt., Ağartı 1750m (65Np), 5.v.2014, M. Kemal & A.Koçak leg. - 2♂. Gören Mt. Ağartı 1950m (65Np2), 25.v.2014, M. Kemal & A.Koçak leg. - 1♂. Gören Mt. 2250m (65Nr8), 27.v.2019, M. Kemal & A.Koçak leg. - 1♂. Gören Mt. NW Dağönü 1740m (65Nu), nocturnal, 21.v.2020, M. Kemal & A.Koçak leg. - 1♂. Van Province, Bahcesaray, Paşaköy 1620m (65Ai), 2.vi.2016, M. Kemal & A.Koçak leg. - 1♂. Van Province, Çatak, Darboğaz 2020m (65Dg), 8.vi.2015, M. Kemal & A.Koçak leg. - 1♂. Van Province, Edremit, Elmalık 1730m (65Le), 30.iv.2017, M. Kemal & A.Koçak leg. - 1♂. From same area, Elmalık 1750m (65Le), 28.v.2017, M. Kemal & A.Koçak leg. - 3♂ (GP2243). East Turkey, **Bitlis** Province, Tatvan, Nemrut Volcano, Caldera 2265m (13Gs), 12.vi.2015, M. Kemal & A.Koçak leg. (Cesa).

Remarks: This vernal species has been reported from Bitlis and Van Provinces so far.

55. ***Megasia (Tsaraphycis) libanoticella Zerny,1934***

(Figs. 17-21)

Original Reference: *Megasia libanoticella* Zerny,1934, Dt. ent. Z., Iris 48: 6, Taf.1 fig.6. Lectotype ♂: Libanon: Becharre, 1900m (Roesler, 1993: 68).

Material studied: 2♂ (GP2046). **Van** Province, Tuşba, Gören Mt. (65Np), 5.v.2014, M.Kemal & A.Koçak leg. - 1♂. Tuşba, Gören Mt. NW Özyurt 1690m (65No), nocturnal, 21.v.2020, M. Kemal & A.Koçak leg. - 5♂(GP3295). Tuşba, Gören Mt. NW Özyurt 1690m (65No), nocturnal, 28.v.2020, M. Kemal & A.Koçak leg. - 1♂. **Malatya** Province, Darende, Beybağı 1.6km N 1200m (44Ei), 25.vi.2017. A.Koçak leg. (Cesa).

Remarks: Externally this species can easily be confused with *Seeboldia korgosella* with the exception of the type of antenna. Genital preparation is therefore necessary.

New records for Malatya and Van Provinces (Kemal & Koçak, 2018; Koçak & Kemal, 2018).

Another species of this subgenus is *mimeticella* (Stgr.). A male specimen of *Megasia mimeticella* from Ağrı Province (Doğubeyazıt 1940m (04Cf)), collected by the authors on 27.vi.2019, is reported here for the first time for Ağrı province (Kemal & Koçak,2019).

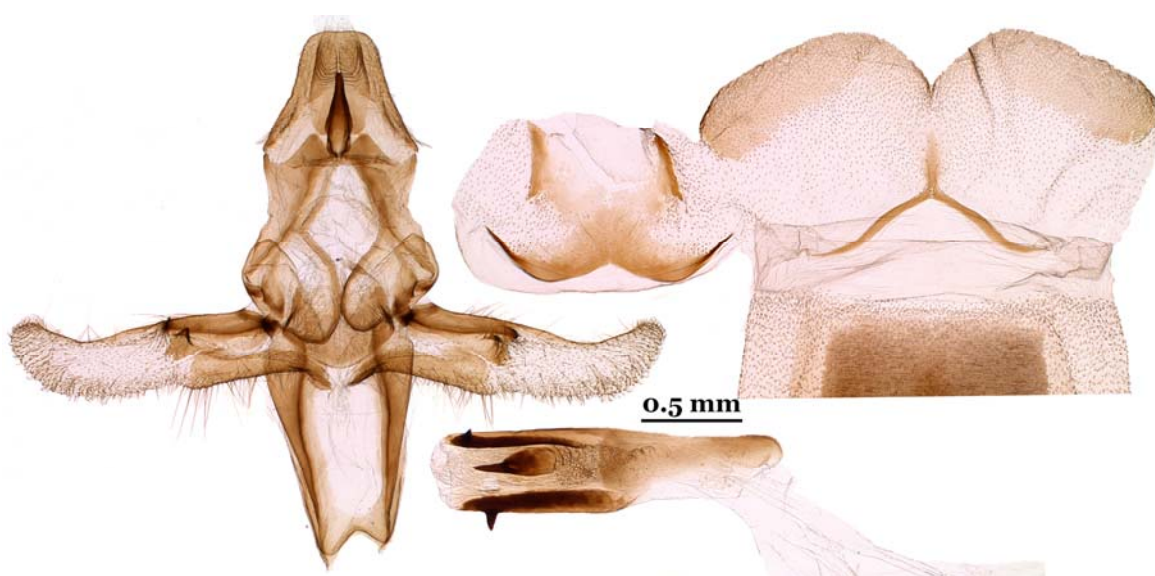
56. ***Nomophila noctuella ([Denis & Schiffermüller],1775)***

Original reference: *Tinea noctuella* [Denis & Schiffermüller],1775, Ankündigung syst. Werkes Schmett. Wienergegend: 136. Type(s): [Austria]: Vienna district [Types presumably destroyed by fire in 1848].

Material studied: 1♂. Van Province, Tuşba, Gören Mt. NW Özyurt 1690m (65No), heliophil, 13.v.2020, M. Kemal & A.Koçak leg. (Cesa)



Figs. 17-19 - *Megasis libanoticella*. Upperside of the male. Tympanal organ (before & after preparation). . Van Province, Tuşba, Özyurt. M. Kemal (Cesa).



Figs. 20, 21 - *Megasis libanoticella*. Male genitalia (GP3295), and terminal abdominal segment. Van Province, Tuşba, Özyurt. M. Kemal (Cesa).

57. *Paracorsia repandalis* ([Denis & Schiffermüller],1775)

Original reference: *Pyrallis repandalis* [Denis & Schiffermüller],1775, Ankündigung syst. Werkes Schmett. Wienergegend: 120. Type(s): [Austria]: Vienna district [Types presumably destroyed by fire in 1848].

Material studied: 1♂1♀. Van Province, Tuşba, Gören Mt. NW Özyurt 1690m (65No), nocturnal, 28.v.2020, M. Kemal & A.Koçak leg. - 1♂. From same place, nocturnal, 28.v.2020, M. Kemal & A.Koçak leg. (Cesa).

58. *Pima boisduvaliella* (Guenée,1845)

Original reference: *Epischnia boisduvaliella* Guenée,1845, Annls Soc. ent. Fr. (2)3: 319. Type(s): Schweiz.

Material studied: 1♂. Van Province, Tuşba, Gören Mt. NW Özyurt 1690m (65No), nocturnal, 28.v.2020, M. Kemal & A.Koçak leg. (Cesa)

59. *Pyrausta virginalis* Duponchel,1832

Original reference: *Pyrausta virginalis* Duponchel,1832, Hist. nat. Lépid. Papillons Fr. 8: 216-217, pl.224 fig.3. Type: [Greece]: Morée.

Material studied: 1♂. Van Province, Tuşba, Gören Mt. NW Dağönü 1740m (65Nu), nocturnal, 21.v.2020, M. Kemal & A.Koçak leg. - 3♂. From same place, nocturnal, 28.v.2020, M. Kemal & A.Koçak leg. (Cesa)

60. *Synaphe moldavica* (Esper,[1789])

Original reference: *Phalaena moldavica* Esper,[1789], Die Schmett. Suppl.3: 38, Taf.86 fig.1. Lectotype ♂: Moldavia, designated by Hacker (1999) (ZSM).

Material studied: 1♂. Van Province, Tuşba, Gören Mt. NW Dağönü 1740m (65Nu), heliophil, 1.vi.2020, M. Kemal & A.Koçak leg. (Cesa)

61. *Udea ferrugalis* (Hübner,1796)

Original reference: *Pyrallis ferrugalis* Hübner,1796, Samml. eur. Schmett. 6,Pyrallides: Tab.9 fig.54. Type(s): Europa.

Material studied: 1♂. Van Province, Tuşba, Gören Mt. NW Özyurt 1690m (65No), heliophil, 13.v.2020, M. Kemal & A.Koçak leg. (Cesa)

Sphingidae**62. *Hyles euphorbiae* (Linnaeus,1758)**

Original reference: *Sphinx euphorbiae* Linnaeus,1758, Syst. Nat. (Edn.10) 1: 492.

Material studied: 5♂. Van Province, Tuşba, Gören Mt. NW Özyurt 1690m (65No), nocturnal, 21.v.2020, M. Kemal & A.Koçak leg. - 3♂. From same place, nocturnal, 28.v.2020, M. Kemal & A.Koçak leg. (Cesa)

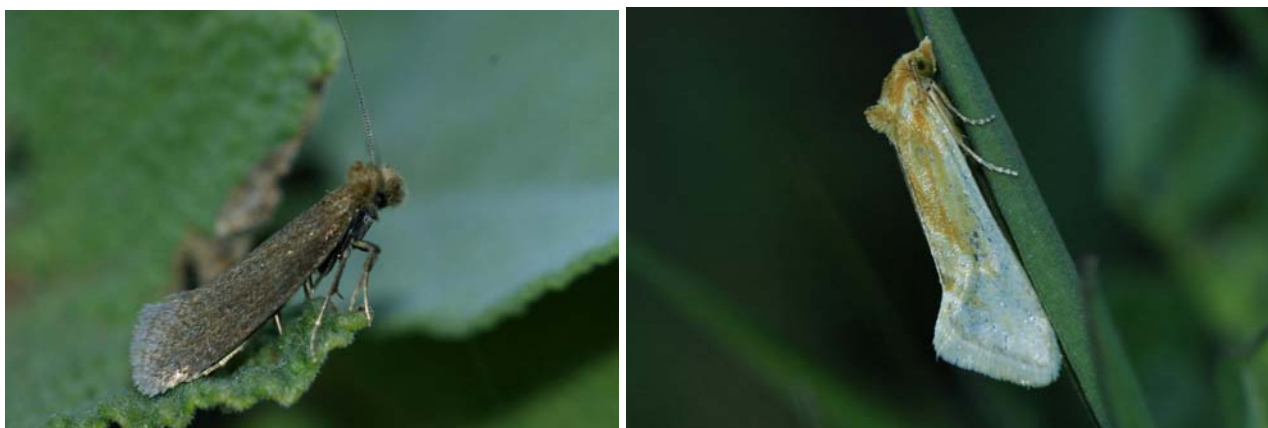
Tineidae**63. *Ceratuncus affinitellus* (Rebel,1901) (Figs. 22-24)**

Original reference: *Myrmecozela affinitella* Rebel,1901, Dt. ent. Z., Iris 13: 184. Syntypes ♂♀: [Türkei]: "nördl. Mesopotamien (Mardin)" (ZMB).

Material studied: 1♂(GP3291). Van Province, Tuşba, Gören Mt. NW Özyurt 1690m (65No), nocturnal, 28.v.2020, M. Kemal & A.Koçak leg - 4♂. From same place, heliophil, 1.vi.2020, M. Kemal & A.Koçak leg. (Cesa)



Figs. 22, 23 - *Ceratuncus affinitellus*. Upperside of the Male and its genitalia (GP3291). Gören Mt. Özyurt 1690m. M. Kemal (Cesa).



Figs. 24, 25 - *Ceratuncus affinitellus* (left). *Aethes prangana* (right). Both from Özyurt 1690m, 28.v.2020. M. Kemal (Cesa)

Tortricidae

64. *Aethes prangana* (Kennel, 1900) (Fig. 25)

Original reference: *Conchylis prangana* Kennel, 1900, Dt. ent. Z., Iris 13: 130-131, Taf.v fig.7. Syntypes 1♂ 1♀: Kaukasus (12 vi 1883, Christoph leg.); Lectotype ♀, [Azerbaijan]: "Ordubad", designated by Razowski (1970: 343) (ZIANL).

Material studied: 1♂ (GP2612). Siirt Province, Şirvan, Bacavan 1560m (56Fe), 29.v.2013, M.Kemal & A.Koçak leg. - 1♀ (GP2609). Bitlis Province Adilcevaz, Süphan Mt. Aygır 1980m (13Ab), 10.vi.2015, M.Kemal & A.Koçak leg. - 6♂. Van Province, Tuşba, Gören Mt. NW Özyurt 1690m (65No), nocturnal, 28.v.2020, M. Kemal & A.Koçak leg. (Cesa)

Remarks: Present records are new for the fauna of Siirt and Van provinces.

65. *Aethes* sp.

Material studied: 4♂. Van Province, Tuşba, Gören Mt. NW Özyurt 1690m (65No), nocturnal, 21.v.2020, M. Kemal & A.Koçak leg. - 8♂. From same place, 28.v.2020, M. Kemal &

A.Koçak leg. - 2♂. Tuşba, Gören Mt. NW Dağönü 1740m (65Nu), nocturnal, 21.v.2020, M. Kemal & A.Koçak leg. (Cesa)

66. ***Aphelia (Zelothereses) ferugana* (Hübner,1793)**

Original reference: [*Tortrix*] *ferugana* Hübner,1793, Samml. ausserl. Vögel Schmett.: 10, pl.51.

Material studied: 5♂♀. Van Province, Tuşba, Gören Mt. NW Dağönü 1740m (65Nu), nocturnal, 21.v.2020, M. Kemal & A.Koçak leg. - 10♂. Gören Mt. NW Özyurt 1690m (65No), nocturnal, 21.v.2020, M. Kemal & A.Koçak leg. - 7♂. From same place, 28.v.2020, M. Kemal & A.Koçak leg. (Cesa)

67. ***Cnephasia* sp.**

Material studied: 3♂. Van Province, Tuşba, Gören Mt. NW Özyurt 1690m (65No), nocturnal, 28.v.2020, M. Kemal & A.Koçak leg. (Cesa)

Remarks: The identity of this species is ongoing.

68. ***Cydia centralasiae* (Obraztsov,1949) (Figs. 26-28)**

Original reference: *Laspeyresia pamira* f. (?ssp.) *centralasiae* Obraztsov,1949, Mitt. münch. ent. Ges. 35-39: 210. Holotype ♂: "vom Berg Bolshoj Tshimgan (W.Thian-Shan), 2800m alt., 10.vii.1934, L.Sheljuzhko et N.Pavlitzkaja leg."

Material studied: 1♂. Van Province, Bahçesaray, Altındere 1935m (65At5), 4.vii.2016, M. Kemal & A.Koçak leg. - 1♂ (GP3293) 1♀. Van Province, Tuşba, Gören Mt. NW Özyurt 1690m (65No), 28.v.2020, M. Kemal & A.Koçak leg. - 17♂♀ (variable in markings). East Turkey, **Malatya** Province, Darende, Beybağı 1.6km N. 1200m, 25.v.2017, A.Koçak leg. - 3 ex. **Muş** Province, Varto, Armutkaşı 1710m (49Fb), 27.v.2015, M. Kemal & A.Koçak leg. - 5♂♀. **Hakkari** Province, Sulphur Valley, 1570m (30Bt1), 18.v.2018, M. Kemal & A.Koçak leg. (Cesa).

Remarks: *Cydia centralasiae* is a species in the *Cydia succedana*-group discussed in detail by Zlatkov & Budashkin (2012). It is new for the fauna of Turkey, as well as Malatya, Hakkari, Muş and Van Provinces.

69. ***Eucosma* aff. *coagulana* (Kennel,1901) (Figs. 29-31)**

Material studied: 14♂♀(GP3294). Van Province, Tuşba, Gören Mt. NW Özyurt 1690m (65No), nocturnal, 28.v.2020, M. Kemal & A.Koçak leg. (Cesa)

Remarks: More than 50 West Palaearctic *Eucosma* spp. have been compared. However, the identity as "*coagulana* Kennel" is temporary. If this identification is confirmed, then this record is new for the fauna of Van Province.

The species "*coagulana*" was described by Kennel (1901, Dt. ent. Z. Iris 13: 278) from Kazıkoparan (NE Turkey). Types were illustrated externally by Kennel (1921: Taf.21 figs. 31, 32). Male genitalia of a specimen from Iran was illustrated by Razowski (1963: 257, fig.4).

70. ***Notocelia cynosbatella* (Linnaeus,1758)**

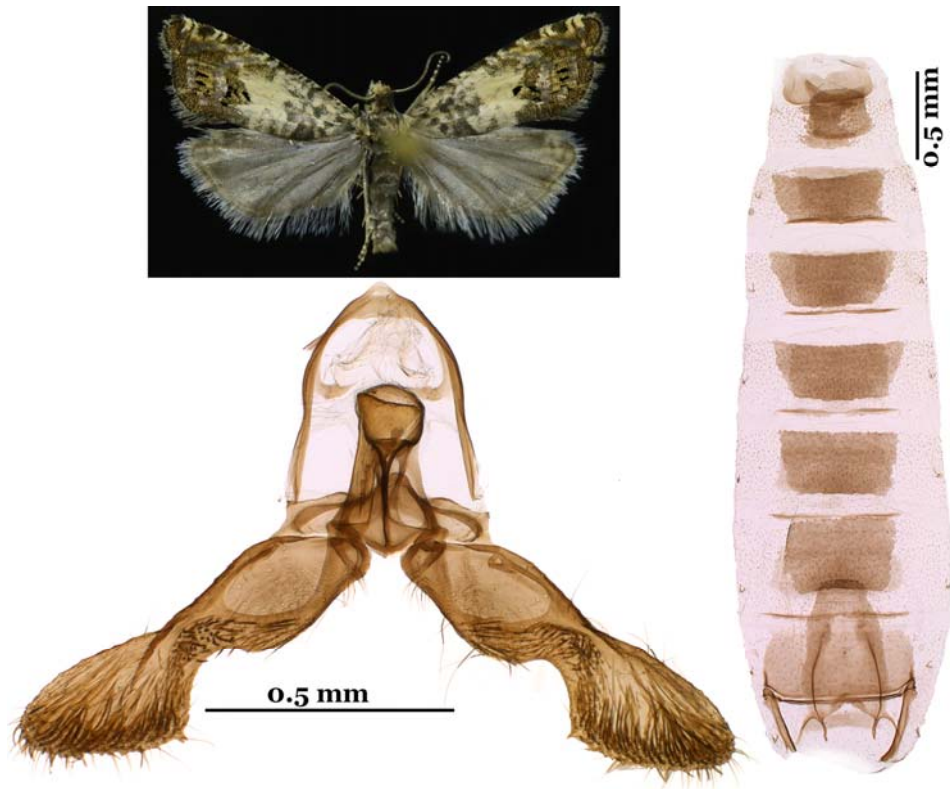
Original reference: *Phalaena (Tortrix) cynosbatella* Linnaeus,1758, Syst. Nat. (Edn.10) 1: 536.

Material studied: 1♀. Van Province, Tuşba, Gören Mt. NW Özyurt 1690m (65No), nocturnal, 28.v.2020, M. Kemal & A.Koçak leg. (Cesa)

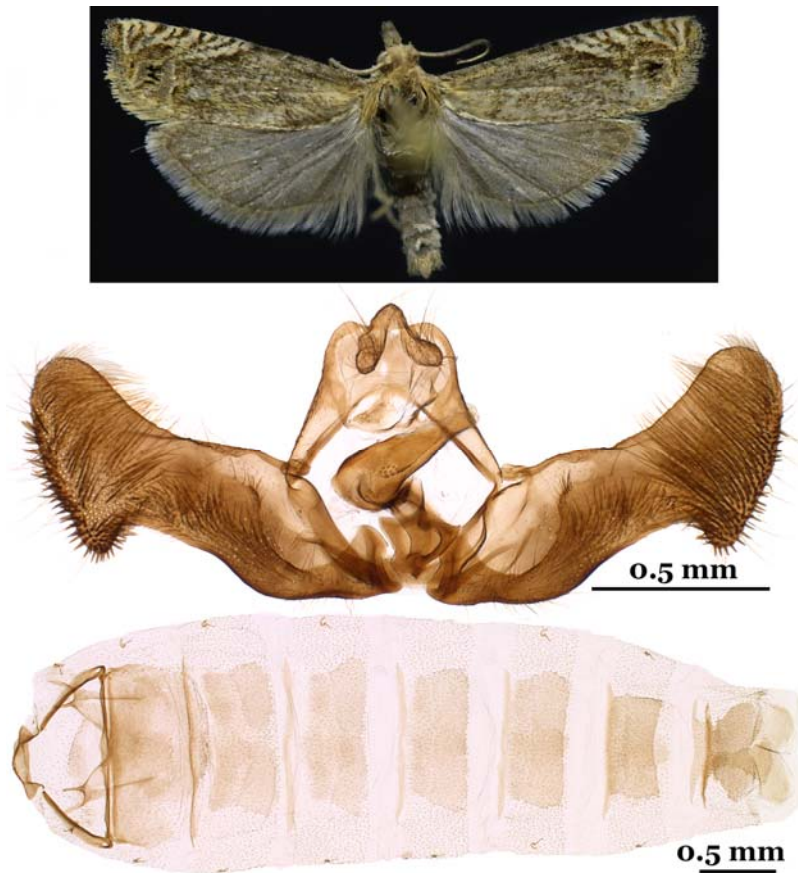
Zygaenidae

71. ***Zygaena* sp.**

Remarks: A full grown caterpillar was found on *Eryngium* at Özyurt on 1.vi.2020.



Figs. 26-28 - *Cydia centralasiae*. Upperside of the male, male genitalia (GP3293) and abdominal skin. Van Province, Gören Mt., Özyurt. M. Kemal (Cesa).



Figs. 29-31 - *Eucosma* aff. *coagulana*. Upperside of the male. Male genitalia (GP3294) and abdominal skin. Van Province, Tuşba, Özyurt. M. Kemal (Cesa).

Addendum:***Tineola bisselliella* (Hummel, 1823)****(Figs. 32-37)**

Synonymy: *flavifrontella* Thunberg, 1794 nec [Denis & Schiff.], 1775; *bisselliella* Hummel, 1823; *crinella* Sodoffsky, 1830; *destructor* Stephens, 1834; *lanariella* Clemens, 1859; *furciferella* Zagulyaev, 1954 [the validity was discussed by Petersen (1957: 142-143) but it is still an open problem]; *anaphecola* Gozmany, 1967

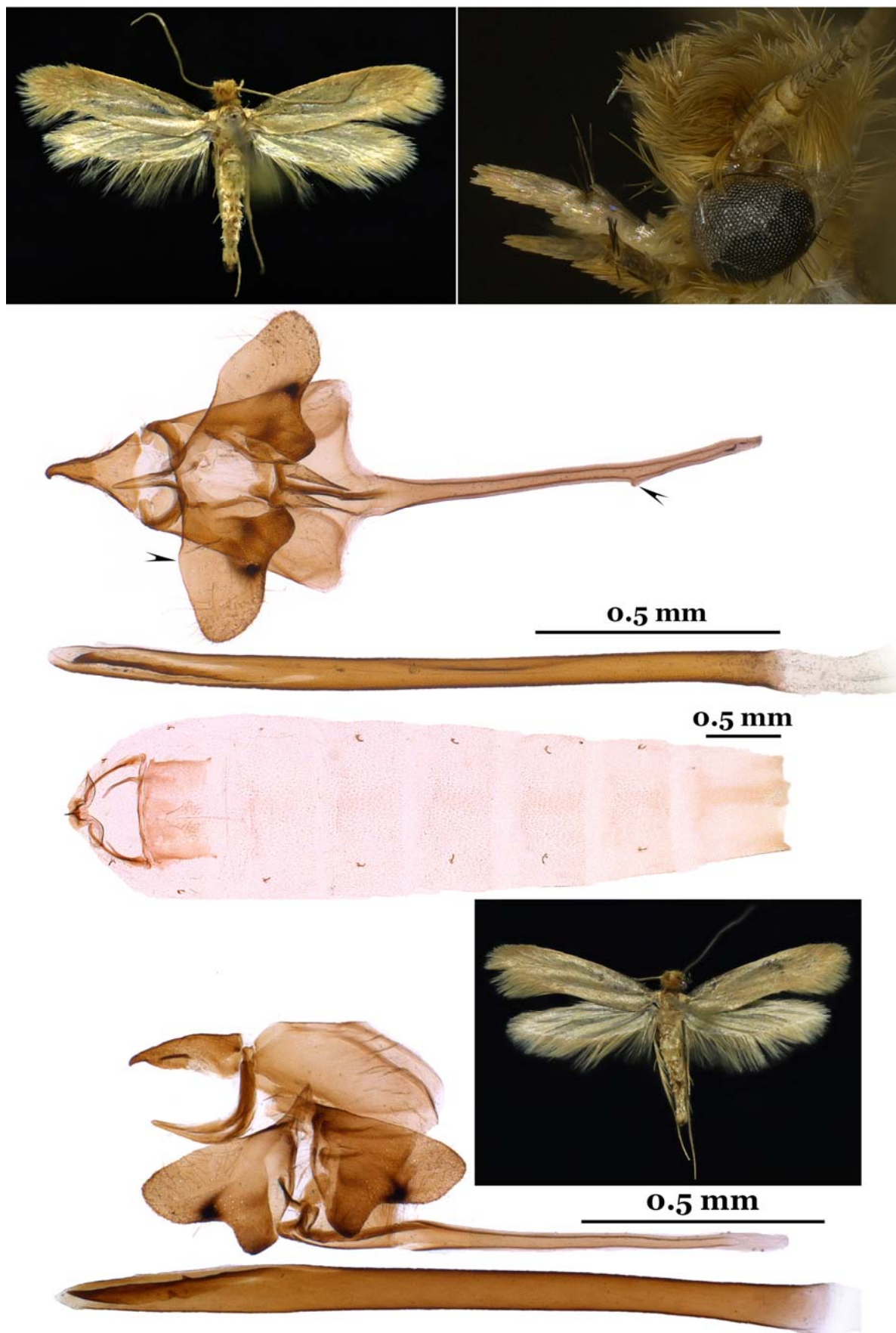
Original Reference: *Tinea bisselliella* Hummel, 1823, Essais Ent. 3: 13.

Range (as code): MA Rbt ES FR Co IT MT IS IE GB BE NL LU DE CH AT PL CZ SK HU RO YU AL BG GR TR IL Pa LB DK NO SE FI EE LV LT RU St Mo Pt Ya Tgn MD UA Kiw BY CN Mc Ui Ku KK Frz ZR ZW Har ZA CG AU 46 65 65N 65Nc4

Material studied: 6♂ (GP3292, GP3300) 1♀. East Turkey, Van Province, Tuşba TOKİ Bardakçı 1720m, (65Nc4), 1-8.vi.2020, M. Kemal & A. Koçak leg. (Cesa).

Remarks: This common and almost geopolit, serious pest species (clothing moth) is reported here from Van Province for the first time. As this report is faunistically important, the species is mentioned here with its genital and adult morphology.

Morphologically, the first specimen dissected (GP3292♂) shows some differences in the male genitalia (marked with arrow). The second specimen (GP3300♂) is more typical one. It seems that this species shows some remarkable variabilities in the male genitalia. These may be summarized as follows: [1] costal edge of valva almost straight (typical) (GP3300) or angular (GP3292). [2] Saccus smooth or dentated at outer part. [3] Aedeagus thicker [typical], or more slender. Cornutus in aedeagus thick, with lateral spine, or remarkably thinner without lateral spine. The genetic distance between these two specimens will be investigated.



Figs. 32-37 - *Tineola bisselliella*. Upperside of the male, lateral view of the head, its genitalia (GP3292) and abdominal skin (upper part). Male genitalia (GP3300) and upperside of the male (lower part). Both from Van Province, Tuşba. M. Kemal (Cesa).

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Additional notes to the genus *Thiodia* of Turkey (Lepidoptera, Tortricidae)

Muhabbet Kemal¹⁰ Ahmet Ömer Koçak

Abstract: Additional notes to the genus *Thiodia* of Turkey (Lepidoptera, Tortricidae). *Misc. Pap.* 212: 31-34, 3 figs.

In this paper, eight *Thiodia* species from Turkey are discussed.

Key words: *Thiodia*, Tortricidae, Lepidoptera, Turkey

In this paper, eight *Thiodia* species from various provinces of Turkey are mentioned. Recently, *Thiodia uyghurica* was described from Adıyaman Province (East Turkey) (Kemal & Koçak, 2020). Unfortunately, the authors overlooked the Obraztsov's (1965) supplementary notes to *Thiodia*. Correction is given below with other related information:

List of the species

1. *Thiodia anatoliana* Kennel, 1916

Synonymy: *anatoliana* Kennel, 1916; #*anatoleana* Kuznetsov, 1976

Original Reference: *Thiodia anatoliana* Kennel, 1916, *Palaeart. Tortr.*: 532, Taf. xx fig. 39. Type ♀: [Armenia]: "Anatolien (Erivan)" (MGAB) [examined digital image].

Range (as code): Cc AM Eri IR Elb Kdv Kz Com LB? TR 42 65 65D 65Dg 65Dga

Faunistic records in Turkey:

Thiodia anatoliana: Koçak & Kemal, 2008, *Priamus* Suppl. 13: 38.

Thiodia anatoliana: Kemal & Koçak, 2016, *Priamus* Suppl. 41: 112-113, figs. 90, 91. Çatak Darboğaz, male and male genitalia.

2. *Thiodia caradjana* Kennel, 1916

Synonymy: *caradjana* Kennel, 1916

Original Reference: *Thiodia caradjana* Kennel, 1916, *Palaeart. Tortr.*: 533, Taf. xx fig. 40. Type ♂: [Armenia]: "Anatolien (Erivan)" (MGAB) [examined digital image].

Range (as code): TR Cc AM Eri 30 65 30B 30Bt1 30Bz 65D 65Df 65Dg 65Dga 65F 65Fp 65Fz

Material studied: 24♂♀. East Turkey, **Van** Province, Çatak, Saklıvadi 2030m (65Df), 25.vi.2017, M. Kemal & A. Koçak leg. - 3♂. Van Province, Gevaş, Artos Mt. 1950m (65Fz), 19.vi.2020, M. Kemal *et al.* leg. - 5♂. SE Turkey, **Hakkari** Province, Zap Valley, Sulphur valley 1620m (30Bt1), 18.vi.2018, M. Kemal & A. Koçak leg. (Cesa).

Remarks: This record is new for the fauna of Hakkari Province (Kemal *et al.*, 2020).

3. *Thiodia citrana* (Hübner, [1799])

Synonymy: *citrana* Hübner, [1799]; *libanicolana* Obraztsov, 1964

Original Reference: [*Tortrix*] *citrana* Hübner, [1799], *Samml. eur. Schmett. Tortrices*: pl. 29 fig. 185. Type: Europe.

¹⁰ Dr Muhabbet Kemal - Van Yüzüncü Yıl University, Faculty of Science, Dept. of Biology, Campus, Van / Turkey.

e-mails: muhabbet_kemal@yahoo.com.tr -Corresponding author: Prof. em Dr Ahmet Ömer Koçak, c/o Yüzüncü Yıl University, Faculty of Science, Dept. of Biology, Van / Turkey. e-mail: cesa_tr@yahoo.com.tr

We hope that this very troubled process, we are experiencing due to the coronavirus pandemic, is over as soon as possible. After this pandemic is finished in the world, we may turn to our normal life and studies.

Range (as code): ES FR Co Sa Si IT IE GB BE NL LU DE CH AT PL CZ SK HU RO YU AL BG TR AM Eri SY Dms Hal DK NO SE FI EE LV LT RU Us MD UA BY LB Bsa Cc GG AZ IR Elb KG Uk TM Sb Sh Ui JP o1 o5 13 16 30 65 75 o1K o5A 13A 13Ab 13Ax 16A 30B 30Br 30Bz 65D 75F

Faunistic records in Turkey:

Thiodia citrana: Koçak & Kemal, 2008, *Priamus* Suppl. 13: 38. Amasya, Bursa, Van.

Thiodia citrana: Kemal & Koçak, 2016, *Priamus* Suppl. 41: 113. Çatak.

Thiodia citrana: Kemal *et al.*, 2018, *Cesa News* 156: 10. Posof.

Material studied: 2♂ (GP2306). East Turkey, **Bitlis** Province, Adilcevaz, Süphan Mt. Aygır 1960m (13Ab), 11.vi.2015, 15.vii.2015, M. Kemal & A. Koçak leg. - 1♂. East Turkey, **Van** Province, Tuşba, Gören Mt. Ağartı 1660m (65Np5), 24.vi.2017, M. Kemal & A. Koçak leg. - 1♀. SE Turkey, **Hakkari** Province, Zap Valley, Sümbül Mt. 1350m (30Br), 19.v.2018, M. Kemal & A. Koçak leg. - 2♂. Hakkari Province, Zap Valley, Sulphur Valley 1620m (30Bt1), 18.vi.2018, M. Kemal & A. Koçak leg. (Cesa).

Remarks: Previously, this species was reported from Çatak (Van), and Posof (Ardahan) (Kemal & Koçak, 2016; Kemal *et al.*, 2018) The present record is new for the fauna of Hakkari Province (Kemal *et al.*, 2020).

4. *Thiodia couleruana* (Duponchel, [1835])

Synonymy: *couleruana* Duponchel, [1835]; *riseana* Frey, 1880; *castiliana* Caradja, 1916; *conternana* Kennel, 1921; *pseudodelitana* Obraztsov, 1952

Original Reference: *Paedisca couleruana* Duponchel, [1835], Hist. Nat. Lépid. Papillons Fr. 9: 353, pl. 28 fig. 8. Type: France.

Range (as code): PT ES Cs Bgs FR CH UA Cm IR Fa TR o3 o6 65 65D 65Dh

Faunistic records in Turkey:

Thiodia couleruana: Koçak & Kemal, 2008, *Priamus* Suppl. 13: 38. Ankara, Van.

Thiodia aff. couleruana: Kemal & Koçak, 2016, *Priamus* Suppl. 41: 113-114, figs. 92, 93. Çatak, female and female genitalia.

Material studied: 1♀ (GP2287), East Turkey, **Van** Province, Çatak 3km NNE 1500m (65Dh), 21.vi.2004, M. Kemal & A. Koçak leg. (Cesa).

5. *Thiodia fessana* (Mann, 1873)

Synonymy: *fessana* Mann, 1873; *uyghurica* Kemal & Koçak, 2020

Original Reference: *Grapholitha fessana* Mann, 1873, [in] A. Rogenhofer & J. Mann, Verh. zool.-bot. Ges. Wien 23: 573. Type ♂: [Türkei; İçel Prov.]: "bei Gülek aus Sträuchern geschucht" (NMNW).

Range (as code): TR Cc GG Mng o2 o5 33 o2F o2Fe o2Fz o5A 33R 33Rb

Faunistic records in Turkey:

Grapholitha fessana Mann, 1873, [in] Rogenhofer & Mann, Verh. zool.-bot. Ges. Wien 23: 573. Type ♂: [Turkey: İçel Province]: "Gülek".

Grapholitha fessana: Staudinger, 1878, *Horae Soc. ent. ross.* 14: 186 "Dorak", 1880, *ibid.* 15: 257-258. [Turkey: Amasya]: "Maidan"; [Georgia]: "Manglis in Armenien".

Grapholitha fessana: Staudinger & Rebel, 1901, *Cat. Lepid. Palaearkt. Faunengeb.* 3(2): 115, nr. 2068.

Epiblema fessana: Kennel, 1921, *Zoologica* 54: 548-549, Tab. xxi fig. 3 (adult, nice picture but not like the original).

Thiodia fessana: Obraztsov, 1965, *Tijdschr. Ent.* 108 (12): 365, Taf. 16 figs. 1, 2 (type, male genitalia)

Thiodia fessana: Koçak & Kemal, 2008, *Priamus* Suppl. 13: 38. Amasya, İçel.

Thiodia uyghurica Kemal & Koçak, 2020, *Misc. Pap.* 211: 13-14, figs. Holotype ♂: Adiyaman Prov., Kahta, Nemrut Mt. (images of holotype and male genitalia) (**syn. n.**)

Remarks: This species was described by Mann (1873) as text in the genus *Grapholitha*. Kennel placed it in the genus *Epiblema*, re-described and illustrated it. First transfer to the genus *Thiodia* was made by Obraztsov (1965) in a supplementary note with illustrations of the type and the male genitalia. There are some discrepancies between the genitalia of *fessana* and *uyghurica*, but they are deemed insignificant. Here we correct this situation and suggest that the authors who will be interested in *Thiodia fessana* should be careful about Obraztsov's publications.

Current distribution of this species is Turkey (İçel, Amasya, Adiyaman), and Georgia (Manglis).

6. *Thiodia sulphurana* (Christoph, 1888)

Synonymy: *sulphurana* Christoph, 1888

Original Reference: *Grapholitha sulphurana* Christoph, 1888, *Horae Soc. ent. ross.* 22: 311. Syntypes: Russia, Sarepta.

Range (as code): RU Sr Cc GG TR IR Ha KG

7. *Thiodia torridana* (Lederer,1859)Synonymy: *torridana* Lederer,1859Original Reference: *Tortrix Lophoderus torridana* Lederer,1859, Wien. ent. Monatschr. 3: 250.

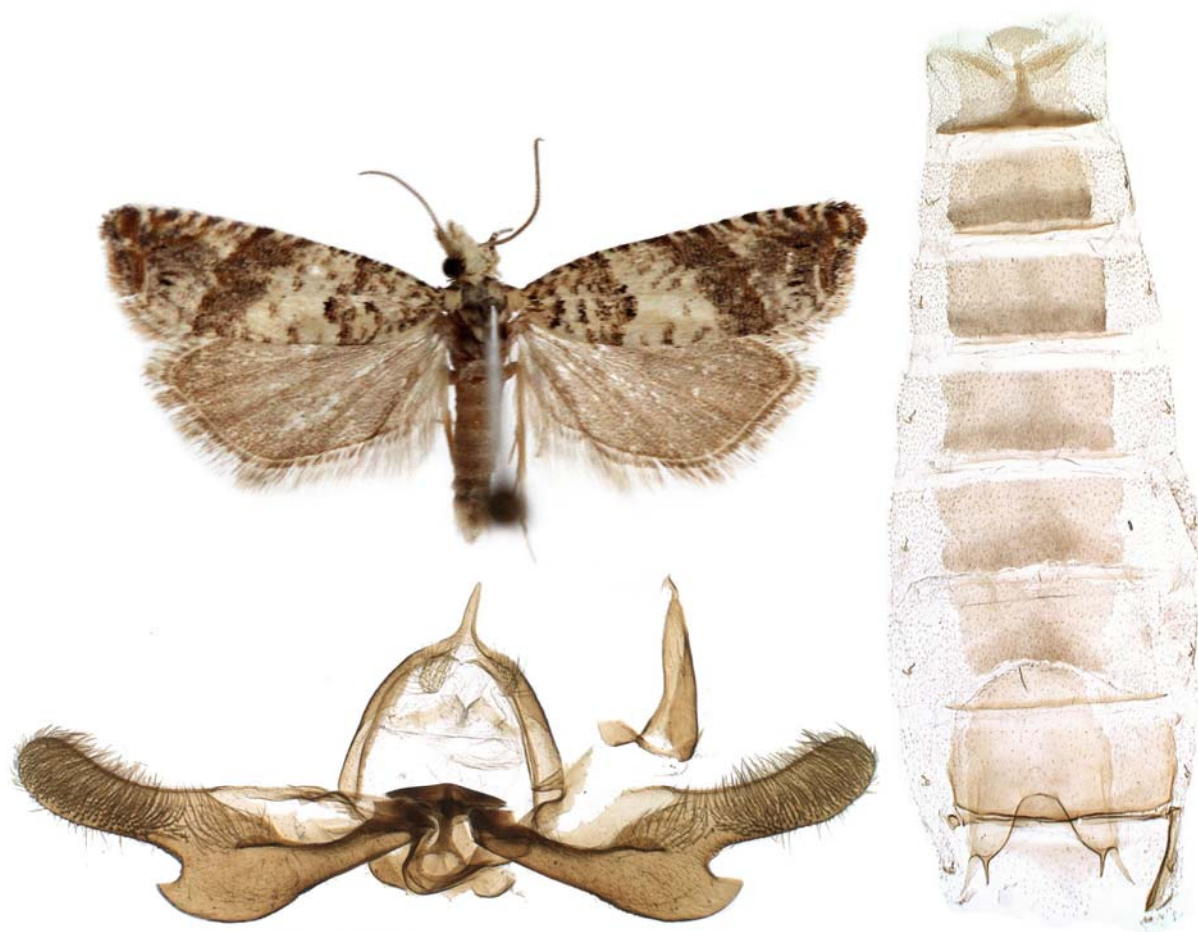
Type(s): "Wien etc."

Range (as code): FR IT DE CH AT PL CZ SK HU HV YU RU Ur Sb Am Us Sh Krl Cc GG TR KG Uk TM KK Ui Ku 75 75F 75Fb

Thiodia torridana: Koçak & Kemal,2008, *Priamus* Suppl.13: 38. [Turkey].**8. *Thiodia trochilana* (Frölich,1828)****(Figs. 1-3)**Synonymy: *trochilana* Frölich,1828; *delitana* Fischer v. Röslerstamm,[1839]; *rieseana* Herrich-Schäffer,1851; *bracteana* Chrétien,1922Original Reference: *Tortrix trochilana* Frölich,1828, Enum. Tortr. Württemberg.: 55. Syntypes: Deutschland, Württemberg.

Range (as code): DZ MA ES FR Co Si IT DE CH AT CZ SK HU RO YU AL BG GR TR IR Kh Cc GG AM LB Say TM LV RU MD UA BY 05 16 44 65 05A 16A 44L 44Lc 65A 65Ai 65L 65Le

Faunistic records in Turkey:

Thiodia trochilana: Koçak & Kemal,2008, *Priamus* Suppl.13: 38. Amasya, Bursa.*Thiodia trochilana*: Kemal & Koçak, 2017, *Priamus* 15 (3): 162. Bahcesaray, Paşaköy.Material studied: 1♂ (GP2304). East Turkey, **Malatya** Province, Bey Dağı NP 1195m, 20.vi.2015, M. Kemal & A.Koçak leg. - 1♂. **Van** Province, Edremit, Elmalık 1750m, 28.vi.2017, A.Koçak leg. (Cesa).Remarks: This species was previously reported by the authors from Van Province (Bahcesaray, Paşaköy) (Kemal & Koçak, 2017). It was unknown from Malatya (Bey Dağı) and Van (Elmalık) (Koçak & Kemal, 2015; Kemal *et al.*, 2018).**Figs. 1-3** - *Thiodia trochilana*. Upperside of male, male genitalia (GP2304), and abdominal skin. East Turkey, Malatya Province, Bey Dağı NP. M. Kemal (Cesa).

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- Staudinger, O.**, 1878-1881. Lepidopteren-Fauna Kleinasien's. *Horae Soc. ent. ross.* 14: 176-482, *ibid.* 15: 159-435, *ibid.* 16: 65-135.

<http://zoobank.org/References/94DE1BDC-9C7E-41CC-8F12-38FDCC138670>

On the species of the genus *Myelois* of Turkey (Lepidoptera, Pyralidae)

Muhabbet Kemal^{1*} Sibel Kızıldağ Ahmet Ömer Koçak

Abstract: On the species of the genus *Myelois* of Turkey (Lepidoptera, Pyralidae). *Misc. Pap.* 212: 35-40, 6 figs. 1 table

In this paper, 11 species of *Myelois* of Turkey are given. New provincial records are mentioned. Male genitalia of two little known species are illustrated. Tympanal organ of *Myelois circumdatella* is illustrated for the first time.

Key words: *Myelois*, Phycitinae, Pyralidae, Lepidoptera, Turkey, fauna, male genitalia, tympanal organ.

The genus *Myelois* is represented by 11 species in Turkey (Koçak & Kemal, 2018). Identifications of the species are generally possible according to their external features. However, the genital morphology of some species needs examination. At this point there are some difficulties, due to the lack of published information regarding the images of the genitalia. For us available information on the adult and genital morphology, used for the identification of the specimens, are arranged in Table 1. This paper is based on the *Myelois* material in the Cesa Collection. New provincial records are given.

Table 1 – References to the images of the adults and genitalia of *Myelois* species recorded from Turkey, with the situation of barcoding.

name of taxa	adults	genitalia	barcoding
<i>circumdatella</i>	Lederer (1858: pl.4 fig.5), Ragonot (1893: pl.22 fig. 2)	this paper, fig. 5	Lep-Pyro56, 658bp- Cesa (TR- Mutki: Aydemir)
<i>luticornella</i>	Ragonot (1893: pl.11 fig. 2)	this paper, fig. 6	
<i>osseella</i>	Ragonot (1893: pl.4 fig.20), Leraut, 2014: 232, fig.16♂).		
<i>ossicolor</i>	Ragonot & Hampson (1901: pl. 26 fig.1), Leraut (2014: 232, fig.15♀).	Leraut (2014: 377, fig.160a ♀)	
<i>pluripunctella</i>	Ragonot (1893: pl.4 fig.14), Leraut (2014: 232, fig. 14♂)	Leraut (2014: 376, fig.159a ♂)	
<i>pumicosa</i>	Ragonot (1893: pl.4 fig.16), Leraut (2014: 232, fig. 20♂), Kemal & Koçak, 2016: 95, fig. 68♀)	Roesler (1988: 179, fig.1♂), Kemal & Koçak, 2016: 96, fig. 69♀)	
<i>circumvoluta</i>	Leraut (2014: 232 figs. 6-10♂♀)	Roesler (1988: 179, fig.2♂), Leraut (2014: 373, fig.157b ♂; 375, fig.158a ♀)	available at Bold Systems
<i>cribratella</i>	Leraut (2014: 232, fig. 11♂)	Leraut (2014: 375, fig.158b ♀; 376, fig.159b ♂)	
<i>fuscicostella</i>	Mann (1861: pl.2 fig.10), Ragonot (1893: pl.22 fig. 3), Leraut (2014: 232, figs. 17-18♂♀)		in the Bold Systems but unavailable
<i>multiforella</i>	Ragonot (1893: pl.5 fig. 7), Leraut (2014: 232, fig.12♀)	Roesler (1988: 183, fig.3 ♂, fig.4 ♀), Leraut (2014: 375, fig.158c ♀)	
<i>quadripunctella</i>	Zerny (1914: 319, pl.25 fig.20♀)	Roesler (1988: 186, fig.9 ♂, fig.10 ♀)	in the Bold Systems but unavailable

^{1*} Dr Muhabbet Kemal & Dr Sibel Kızıldağ - Van Yüzüncü Yıl University, Faculty of Science, Dept. of Biology, Campus, Van / Turkey.
e-mails: muhabbet_kemal@yahoo.com.tr & sibelkizildag@yyu.edu.tr

Corresponding author: Prof. em Dr Ahmet Ömer Koçak, c/o Yüzüncü Yıl University, Faculty of Science, Dept. of Biology, Van / Turkey.
e-mail: cesa_tr@yahoo.com.tr

We hope that this very troubled process, we are experiencing due to the coronavirus pandemic, is over as soon as possible. After this pandemic is finished in the world, we may turn to our normal life and studies.

List of the species

1. *Myelois (Gnathogutta) circumdatella* Lederer, 1858 (Figs. 1-5)

Synonymy: *circumdatella* Lederer, 1858; *ottoella* Schawerda, 1924; *quinquepunctella* Turati, 1934; *cinnerethella* Amsel, 1935

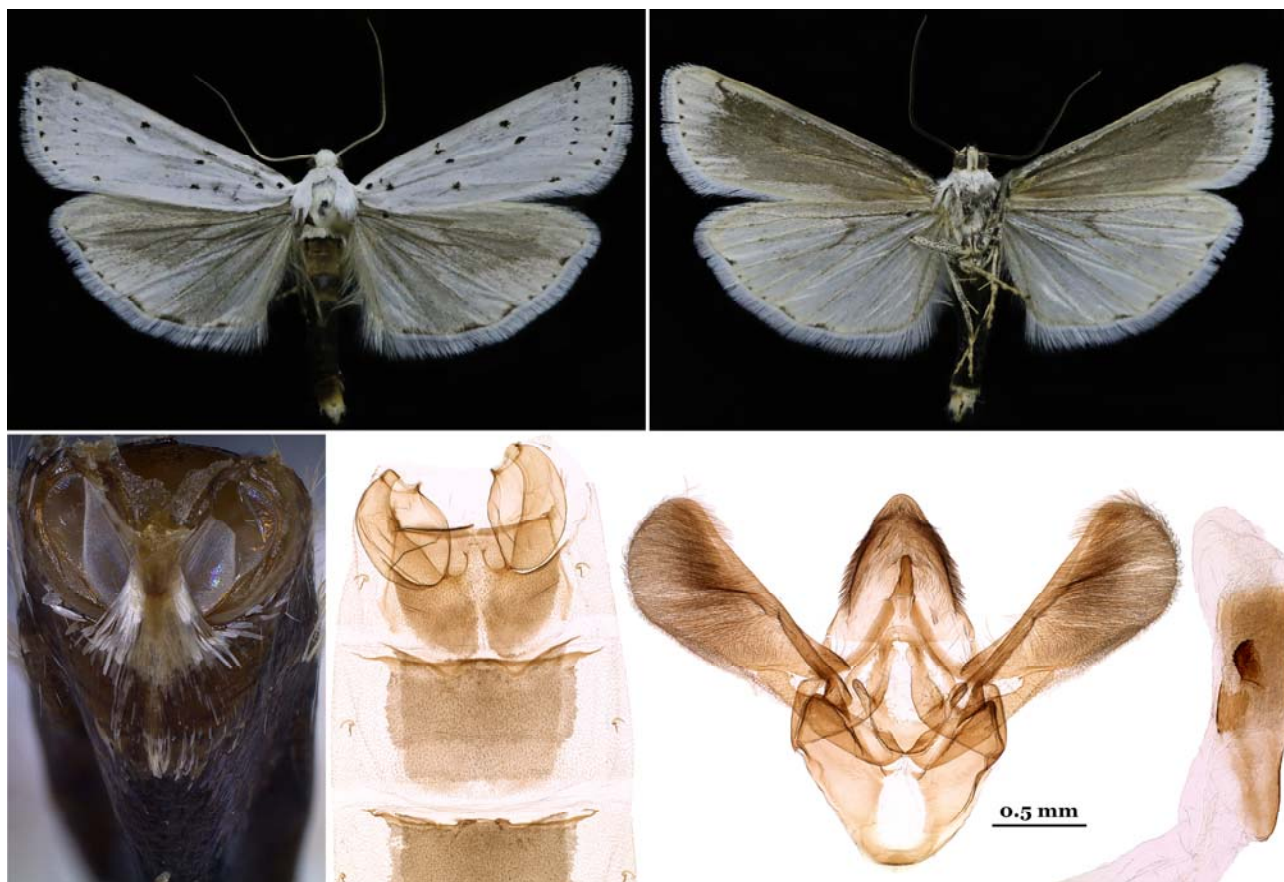
Original Reference: *Myelois circumdatella* Lederer, 1858, Wien. ent. Monatschr. 2: 149, Taf. 4 fig. 5.

Syntypes 3♂: Syrien: Damask.

Range (as code): LY Cy TR SY Dms IL Pa Hf Js LB IQ Shq Hjo Mos IR Fa Sse Shr Th Elb Kdj 01 13 14 21 31 46 49 56 65 73 01K 13F 13F11 13F28 13F35 13F38 13F71 30B 30Bc5 30Bz 31M 49F 49Fb 49Ff 56F 56Fb 65A 65Ai 65An 65Am 65Am1 65Am4 65D 65Du 65Dh 65N 65Nr7 65Np1 65Nm 73A 73Ak

Material studied: 1♀. NW Turkey, **Bolu** Province, Abant road 1200m, 1.viii.1980, A.Koçak leg. - 4♀. East Turkey, **Van** Province, Çatak 3km NNE 1500m (65Dh), 9.vi.2001, M.Kemal & A.Koçak leg. - 2♂1♀. Tuşba, Gören Mt., Ağartı 1825m (65Nr7), 17.v.2014, M.Kemal & A.Koçak leg. - 1♂. From same place, 1860m (65Np1), 18.v.2014, M.Kemal & A.Koçak leg. - Van Province, Bahcesaray, Upper Mukus Valley: 5♂: 1760m (65Am1) 12.vi.2016, 3♂: 1850m (65Am3), 24.vi.2016, 6♂: 1840m (65Am4), 23.vi.2016, all M.Kemal & A.Koçak leg. - 3♂. Bahcesaray, Paşaköy 1620m (65Ai), 2.vi.2016, M.Kemal & A.Koçak leg. - 1♂1♀. SE Turkey, **Şırnak** Province, Beytüşşebap, Komato 1065m (73Ak), 3.v.2013, M.Kemal & A.Koçak leg. - 4♂1♀. East Turkey, **Muş** Province, Varto, Armutkaşı 1720m (49Fb), 28.v.2015, M.Kemal & A.Koçak leg. - 17♂. East Turkey, **Bitlis** Province, Mutki, Aydemir 1710m (13F71), 11.vi.2018, M.Kemal & A.Koçak leg. - 6♂. SE Turkey, **Hakkari** Province, Sümbül Mt. 1625m (30Bc5), M.Kemal & A.Koçak leg. (Cesa).

Remarks: A variable species in colouration of the wings and the size of maculations. The present records are new for the fauna of the following provinces: Bolu, Hakkari, Şırnak, Muş.



Figs. 1-5 - *Myelois circumdatella*. Upperside and underside of the male, tympanal organ (before & after preparation), and the male genitalia (GP3297). East Turkey, Malatya Province, Darende, Beybağı. M. Kemal (Cesa).

2. *Myelois (Gnathogutta) luticornella* Ragonot, 1887 (Fig. 6)

Synonymy: *luticornella* Ragonot, 1887

Original Reference: *Myelois luticornella* Ragonot, 1887, Annls Soc. ent. Fr. (6) 7: 226. Type ♂: [Turquie]: Marasch (Asie Mineure) (coll. Staudinger) [vide: Ragonot, 1893, Mém lépid. 7: pl. xi fig. 2].

Range (as code): TR 46 47 56 46G 47D 47Dc 56F 56Fb 56Fc

Material studied: 1♂ (GP2235) 2♀. SE Turkey, Siirt Province, Şirvan, Bacavan 1560m (56Fc), 29.v.2013, M. Kemal & A. Koçak leg. - 1♂. Şirvan, Maden kvş. 960m (56Fb), 31.v.2013, M. Kemal & A. Koçak leg. - 1♂. SE Turkey, Mardin Province, Artuklu, Sultanköy 1.7km NE 1070m (47Dc), 14.v.2017, M. Kemal & A. Koçak leg. (Cesa).

Remarks: This very large-sized species is endemic for Turkey. It is found in Kahramanmaraş, Mardin and Siirt Provinces.



Fig. 6 - *Myelois luticornella*. Male genitalia (GP2235). SE Turkey, Siirt Province, Şirvan, Bacavan. M. Kemal (Cesa).

3. *Myelois (Gnathogutta) osseella* (Ragonot, 1887)

Synonymy: *osseella* Ragonot, 1887; *jerusalemella* Amsel, 1935

Original Reference: *Myelois osseella* Ragonot, 1887, Annls Soc. ent. Fr. 1887: 226. Syntypes: [Lebanon]: Beirut.

Range (as code): MA DZ Bsk Onç IL Pa Js SY TR LB Bei AF Srb Bm Pnj 01

4. *Myelois (Gnathogutta) ossicolor* Ragonot, 1893

Synonymy: *ossicolor* Ragonot, 1893

Original Reference: *Myelois ossicolor* Ragonot, 1893, [in] Romanoff, Mém. lépid. 7: 44, pl. xxvi fig. 1 [Hampson, 1901]. Type ♂: "Mardin (Turquie d'Asie)". (coll. Staudinger).

Range (as code): CY TR IL Pa IR Elb Tsg Lgr 13 21 30 31 33 46 47 65 13F 13F35 13F38 13F7 13F71 21N 21Nb 30D 30Df 31F 31M 33A 33Ac 46D 46Dc 46G 47D 65K 65Kl6 65Z

Material studied: 2♂. SE Turkey, **Diyarbakır** Province, Kulp Taşköprü 850m (21Nb), 20.vii.2008, M. Aydın leg. - 6♂. South Turkey, **İçel** Province, Anamur, Taşocağı (33Ac), 19.viii.2015, M. Kemal & A. Koçak leg. - 6♂1♀. SE Turkey, **Bitlis** Province, Mutki, Aydemir 1710m (13F71), 25.vii.2017, M. Kemal & A. Koçak leg. - East Turkey, Van Province, Erek Mt. 2135m (65Kl6), 3.viii.2018, M. Kemal & A. Koçak leg. - 1♂ (GP2731), SE Turkey, **Hakkari** Province, Yüksekova, Dağlıca 1520m, 24.vii.2017, H. Uçak leg. - 1♀. **Iran**, Tehran, Lashgarak 1750m (Lgr), 5.vii.1994, A. Koçak *et al.* leg. (Cesa).

Remarks: This little known species is apparently confined to the southern provinces in Turkey. It is found in Bitlis, Diyarbakır*, Hakkari, Hatay, İçel, Kahramanmaraş, Mardin and Van* provinces (* denotes new record).

5. *Myelois (Gnathogutta) pluripunctella* (Ragonot, 1887)

Synonymy: *pluripunctella* Ragonot, 1887

Original Reference: *Myelois pluripunctella* Ragonot, 1887, Annls Soc. ent. Fr. 1887: 226. Syntypes 2 ♂: [Lebanon]: Beirut [vide: Ragonot, 1893, Mém. lépid. 7: pl. iv fig. 14].

Range (as code): TR GR LB Bei IL Hf Pa CY 05 13 30 31 46 56 65 05A 13F 13F6 31M 56F 56Fb 65F 65Fp 65Fz

Material studied: 1♂. East Turkey, Van Province, Gevaş, Artos Mt. 1980m (65Fp), 15.vii.2012, M. Kemal & A. Koçak leg. - 3♀. SE Turkey, Siirt Province, Şirvan, Maden Pass 1360m, 1.vii.2013, M. Kemal & A. Koçak leg. (Cesa).

6. *Myelois (Gnathogutta) pumicosa* Lederer, 1855

Synonymy: *pumicosa* Lederer, 1855

Original Reference: *Myelois pumicosa* Lederer, 1855, Verh. zool.- bot. Ges. Wien 5: 252-253. Syntypes 2♂: [Türkei]: "Diarbekir".

Range (as code): TR LB IQ Hjo Dy 13 21 44 46 56 65 13F 13G1 21F 44E 44Ei 56F 56Fb 56Fs 56Fs1 65A 65Am 65Am1 65Am4 65D 65Ds 65F 65Fg

Material studied: 1♂ (GP2236), SE Turkey, **Siirt** Province, Şirvan, Nallıkaya, Dikilitaş 1940m (56Fs1), 30.vi.2013, M. Kemal & A. Koçak leg. - 1♂. Şirvan, Maden kvş. 960m (56Fb), 31.v.2013, M. Kemal & A. Koçak leg. - 5♂. **Van** Province, Bahçesaray, Upper Mukus Valley 1840m (65Am4), 3.vi.2016, 23.vi.2016, M. Kemal & A. Koçak leg. - 2♂. Bahçesaray, Upper Mukus Valley 1760m (65Am1), 12.vi.2016, M. Kemal & A. Koçak leg. - 1♂. East Turkey, **Malatya** Province, Darende, Beybağı 1.6km N, 1200m (44Ei), 25.v.2017, A. Koçak leg. - 1♂. SE Turkey, **Bitlis** Province, Mutki, Aydemir 1710m (13F71), 11.vi.2018, M. Kemal & A. Koçak leg. - 1♂. Bitlis Province, Tatvan, Kavaklı 1790m (13G1), 2.vi.2019, M. Kemal & A. Koçak leg. (Cesa).

Remarks: This is also one of the largest species of *Myelois*. It was recorded so far from Bitlis, Diyarbakır, Malatya, Kahramanmaraş, Siirt and Van provinces.

7. *Myelois (s.str.) circumvoluta* (Fourcroy, 1785)

Synonymy: *circumvoluta* Fourcroy, 1785; *circumvolutella* De Villers, 1789; *cribrella* Hübner, 1796; *cardui* Haworth, 1811; *medullalis* Hübner, [1825]; *pallium* Vallot, 1829; *gilvescentella* Fuchs, 1903; *britannicella* Amsel, 1951; *impunctata* Hartig, 1952; *nigrapeza* Hartig, 1952

Original Reference: *Tinea circumvoluta* Fourcroy, 1785, Ent. Paris: 326. Type(s): Paris.

Range (as code): DZ Ges Lbs PT ES FR Co Sa Si IT GB BE NL DE CH AT PL CZ SK HU RO YU AL BG GR TR DK SE FI EE LV LT RU MD UA BY IR Mz 01 04 06 12 13 17 21 30 31 33 36 47 49 56 65 71 73 80 04C 04Cf 06R 06Rd 12A 12Ai 13F 13F35 13F42 13F71 21L 21Lc 30B 30Bc 30Bt1 30Bz 31M 33A 33Am 36D 36Db 47D 47Dc 49F 49Fb 56F 56Fb 65Am 65Am 65Am1 65Am4 65Aş 65D 65Dh 65Ds 65Dv 65Du 65G 65Gb 65Gc 65K 65Kd 65Kg 65N 65Np1 65Np5 65Nm 73D 73Df

Material studied: 1♂2♀. East Turkey, **Van** Province, Çatak, Narlı, Kato Mt. N., Konalga 1800m (65Ds), 26.v.2001, M. Kemal & A. Koçak leg. - 1♂. Van Province, Tuşba, Gören Mt., Ağartı 1860m (65Np1), 3.vii.2014, M. Kemal & A. Koçak leg. - 1♂. Tuşba, Ağartı 1660m (65Np5), 24.vi.2017, M. Kemal & A. Koçak leg. - 3♂. Van Province, Bahçesaray, Upper Mukus Valley 1840m (65Am4), 02.vi.2016, 25.vi.2016, 05.viii.2016, M. Kemal & A. Koçak leg. - 2♂. Bahçesaray, Bağcılar 1km SE 2210m (65Aş), 15.vii.2017, M. Kemal & A. Koçak leg. - 1♂. Van Province, Gürpınar, Çavuştepe 1820m (65Gc), 5.vii.2019, M. Kemal & A. Koçak leg. - 1♂. SE Turkey, **Siirt** Province, Şirvan, Maden Kvş. 965m (56Fb), 10.viii.2013, M. Kemal & A. Koçak leg. - 1♂. SE Turkey, **Diyarbakır** Province, Hazro, Uzunargıt 953m (21Lc), 16.v.2015, M. Kemal & A. Koçak leg. - 1♂. East Turkey, **Muş** Province, Varto, Armutkaşı 1710m (49Fb), 27.v.2015, M. Kemal & A. Koçak leg. - 1♀. SE Turkey, **Mardin** Province, Artuklu, Sultanköy 1.7km E 1070m (47Dc), 14.v.2017, M. Kemal & A. Koçak leg. - 1♂. East Turkey, **Bingöl** Province, Bingöl, Mendo 1330m (12Ai), 27.iv.2018, M. Kemal & A. Koçak leg. - 1♂. South Turkey, **İçel** Province, Anamur, Ovabaşı 2km W. 100m (33Am), 3.v.2018, M. Kemal & A. Koçak leg. - 1♂. East Turkey, **Bitlis** Province, Mutki, Aydemir 1710m (13F71), 25.vii.2017, M. Kemal & A. Koçak leg. - 2♂. SE Turkey, **Hakkari** Province, Hakkari, Zap Valley, Sulphur Valley 1570m (30Bt1), 18.vi.2018, 8.vii.2018, M. Kemal & A. Koçak leg. - 2♂. Hakkari, Ağaçdibi 1375m (30Bc), 7.vii.2018, M. Kemal & A. Koçak leg. - 3♂1♀. North-East Turkey, **Ağrı** Province, Doğubeyazıt, İhsakpaşa sarayı vic. 1940m (04Cf), 27.vi.2019, M. Kemal & A. Koçak leg. (Cesa).

Remarks: Perhaps the most common species of the genus in Turkey. It was recorded so far from Adana, Ağrı, Ankara, Bingöl, Bitlis, Çanakkale, Diyarbakır, Hakkari, Hatay, İçel, Kars, Mardin, Muş, Siirt*, Van, Kırıkkale, Şırnak, and Osmaniye provinces (* denotes new record).

8. *Myelois (s.str.) cribratella* Zeller, 1847

Synonymy: *cribratella* Zeller, 1847; *pallipedella* Ragonot, 1893

Original Reference: *Myelois cribratella* Zeller, 1847, Isis 1847: 762. Type(s): Sizilien.

Range (as code): IT FR Co Sa Si LU TR o6 44 44E? 44Ei? 44L

Material studied: 12♂. East Turkey, Malatya Province, Darende, Beybağı 1200m (44Ei), 25.v.2017, A.Koçak leg. [identity temporary].

Remarks: A little known species, known from Ankara, and Malatya provinces (Leraut, 2014: 232, fig.11).

9. *Myelois (s.str.) fuscicostella* Mann, 1861

Synonymy: *fuscicostella* Mann, 1861; *nivosella* Ragonot, 1890; *palalbidella* Chrétien, 1917; *margaritella* Turati, 1930; *infumatella* Amsel, 1961; *niveisplendella* Amsel, 1961

Original Reference: *Myelois fuscicostella* Mann, 1861, Wien. ent. Monatschr. 5: 183-184, Tab.2 fig.10. Type ♂: [Türkei]: Amasia.

Range (as code): DZ Ges Bsk Lms Onç TN Gf LY Cy TR ES AF Srb Bm IR IQ Kbl o5 o6 71 o5A

Remarks: A little known species, known from Amasya, Ankara, and Kırıkkale provinces.

10. *Myelois (s.str.) multiforella* Ragonot, 1893

Synonymy: *multiforella* Ragonot, 1893; *luteotinctella* Caradja, 1910; *ronja* Roesler, 1988

Original Reference: *Myelois multiforella* Ragonot, 1893, [in] Romanoff, Mém. Lépid. 7: 37, pl.v fig.7. Type ♂: "Turcoménie".

Range (as code): Si RO BG TR IR Elb Dam Mz 42 58 ?65 ?65L ?65Le

Remarks: A little known species, known from Konya and Sivas. Record from Elmalık (Van Province) needs re-examination (Kemal *et al.*, 2018).

11. *Myelois (s.str.) quadripunctella* Zerny, 1914

Synonymy: *quadripunctella* Zerny, 1914

Original Reference: *Myelois quadripunctella* Zerny, 1914, Annln naturh. Mus. Wien 28: 319, Taf. xxv fig. 20. Type ♀: [Türkei]: Akbes (NHMW).

Range (as code): TR AE 31 46 31M

Remarks: A little known species, known from Hatay (Akbes) and Kahramanmaraş provinces.

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A new faunistic record of *Cremnophila* Ragonot in Turkey (Lepidoptera, Pyralidae)

Muhabbet Kemal¹² Ahmet Ömer Koçak

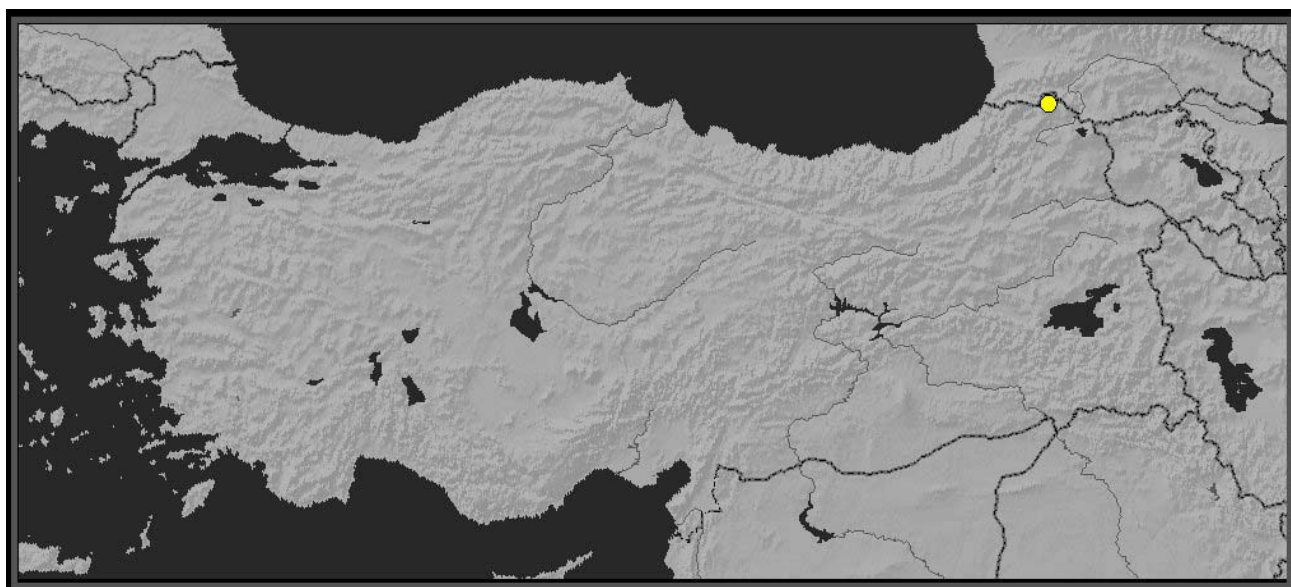
Abstract: A faunistic record of *Cremnophila* Ragonot in Turkey (Lepidoptera, Pyralidae). *Misc. Pap.* 212: 41-43, 6 figs. 1 map.

In this paper, a new faunistic record of a phycitinae species, *Cremnophila sedakovella* for Turkey is reported. Illustrations of adult, male genitalia and tympanal organ are given.

Key words: *Cremnophila sedakovella*, Phycitinae, Pyralidae, Lepidoptera, Turkey, Ardahan, Posof, fauna, male genitalia, tympanal organ.

Previously, the authors listed 245 Lepidoptera species from Posof (NE Turkey, Ardahan Province) (Kemal *et al.*, 2018) (Map 1).

In the present paper, an interesting capture of *Cremnophila sedakovella* is reported and illustrated from Turkey for the first time. This subalpine/alpine species was originally described by Eversmann (1851: 644) as “*Myelophila sedakovella*” from Buryatia (Kiachta) in Asiatic Russia. The genus *Cremnophila* was established by Ragonot (1893). Currently this species is known from Central Asia (Buryatia, [Uighur Ili:] Juldus Mts.) and Central Europe (Spain, France, Italy, Austria, Switzerland) (Leraut, 2014: 210 fig.17, 332). In Caucasus there is no information about this species. The present record from alpine/subalpine zone of Ulgar Mt. is interesting, due to the lack of enough information about the distribution of this rare and local species.



Map 1 – Locality of Posof in NE Turkey.

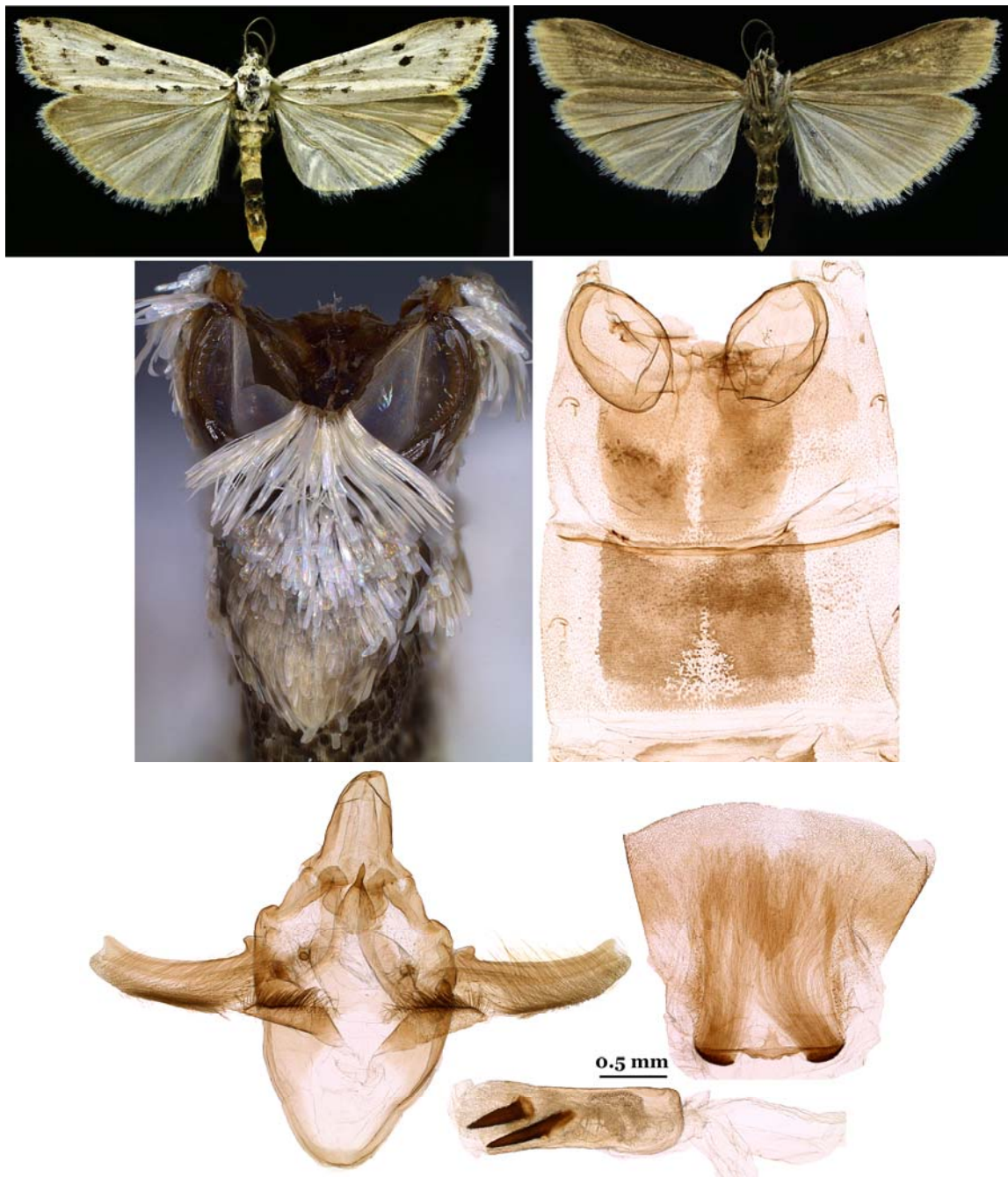
¹² Dr Muhabbet Kemal - Van Yüzüncü Yıl University, Faculty of Science, Dept. of Biology, Campus, Van / Turkey.
e-mails: muhabbet_kemal@yahoo.com.tr -Corresponding author: Prof. em Dr Ahmet Ömer Koçak, c/o Yüzüncü Yıl University, Faculty of Science, Dept. of Biology, Van / Turkey. e-mail: cesa_tr@yahoo.com.tr

We hope that this very troubled process, we are experiencing due to the coronavirus pandemic, is over as soon as possible. After this pandemic is finished in the world, we may turn to our normal life and studies.

The present number of the Lepidoptera, recorded from Posof is 298 (Info-system of the Cesa)¹³.

Material studied: 1♂. NE Turkey, Ardahan Province, Posof, Ulgar Mt. 2000m, M. Kemal & A.Koçak leg. (Cesa).

The present specimen differs externally by reduced yellowish fringle on both wings. The male genitalia shows also some differences from European *sedakovella*. DNA barcoding of this specimen will be prepared and compared with those of European populations in a separate paper. For the time being, the adult moth is illustrated here together with its genitalia and tympanal organ.



Figs. 1-6 - *Cremnophila sedakovella*. Upperside and underside of the male (top), tympanal organ (before and after preparation) (middle), male genitalia (GP3296) and scent organ at the last abdominal segment. NE Turkey, Ardahan Province, Posof, Ulgar Mt. M. Kemal (Cesa).

¹³ <http://www.cesa-tr.org/Infos.htm>

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On the nomenclature of some *Polyommatus* taxa in the West Palaearctic Region (Lepidoptera, Lycaenidae)

Muhabbet Kemal¹⁴ Ahmet Ömer Koçak

Abstract: On the nomenclature of some *Polyommatus* taxa in the West Palaearctic Region (Lepidoptera, Lycaenidae). *Misc. Pap.* 212: 44-45.

In this paper, the valid names of three *Polyommatus* taxa are discussed, new synonyms proposed.

Key words: *Polyommatus*, Lycaenidae, Lepidoptera, nomenclature, Ukraine, Byelorussia, Poland, Tadjikistan, Armenia.

In this short paper, the valid names of three *Polyommatus* taxa are discussed. The genus *Polyommatus* was established by Latreille in 1804. Its type species is *Papilio icarus* Rottemburg, 1775. In the newest taxonomic and classification studies, this genus comprises a large number of species -, and genus group taxa. Among these species, some scientific names appeared as homonyms. Among the proposed replacement names, there are also some unnecessary repetitions.

In the following text, these names are mentioned and new synonyms proposed:

***Polyommatus* (s.str.) *eros* ssp. *krziwitskyi* Koçak & Kemal, 2001 (stat.n.)**

Synonymy: *orientalis* Krziwitsky, 1983 nec Staudinger, 1901; *krziwitskyi* Koçak & Kemal, 2001; *silvester* Korb & Bolshakov, 2011

Original Reference: *Polyommatus* (s.str.) *boisduvalii* ssp. *krziwitskyi* Koçak & Kemal, 2001, Cent. ent. Stud., Misc. Pap. 75: 2 (nomen novum pro *orientalis* Krziwitsky, 1983 nec Staudinger, 1901).

Remarks: The replacement name *silvester* was given by Korb & Bolshakov in 2011 (Eversmannia, Suppl. 2: 91) with the same purpose; therefore it is proposed here as **new synonym**. The valid name for the subspecies is *krziwitskyi*, proposed ten years earlier.

Range: Ukraine, Byelorussia, Poland.

***Polyommatus* (s.str.) *icadius* ssp. *balletto* Koçak, 1996 (stat.n.)**

Synonymy: *alaicus* Balletto & Nekrutenko, 1987 nec Groum-Grsh., 1888; *balletto* Koçak, 1996; *morkeleb* Korb, 2000

Original Reference: *Polyommatus* (s.str.) *kashgarensis* ssp. *balletto* Koçak, 1996, Cent. ent. Stud., Misc. Pap. 30/33: 29 (nomen novum pro *Polyommatus alaicus* Balletto & Nekrutenko, 1986 nec *Polyommatus thersamon* var. *alaica* Groum-Grshimailo, 1888).

Remarks: The replacement name *morkeleb* was proposed by Korb in 2000 (Bull. Soc. ent. Mulhouse 56: 14) with the same aim; therefore it is proposed here as **new synonym**. The valid name for the subspecies is *balletto*, proposed four years earlier.

Range (in code): Tadjikistan: Darwaz.

***Polyommatus* (s.str. (*Agrodiaetus* (*Transcaspicus*))) *zarathustra* ssp. *ihmal* Koçak & Kemal, 2008 (stat.n.)**

Synonymy: *neglectus* Dantchenko, 2000 nec Stradomsky & Arzanov, 1999; *ihmal* Koçak & Kemal, 2008

¹⁴ Dr Muhabbet Kemal - Van Yüzüncü Yıl University, Faculty of Science, Dept. of Biology, Campus, Van / Turkey.

e-mails: muhabbet_kemal@yahoo.com.tr -Corresponding author: Prof. em Dr Ahmet Ömer Koçak, c/o Yüzüncü Yıl University, Faculty of Science, Dept. of Biology, Van / Turkey. e-mail: cesa_tr@yahoo.com.tr

We hope that this very troubled process, we are experiencing due to the coronavirus pandemic, is over as soon as possible. After this pandemic is finished in the world, we may turn to our normal life and studies.

Original Reference: *Polyommatus* (s.str. (*Agrodiaetus*)) *arasbarani* ssp. *ihmal* Koçak & Kemal, 2008, Cent. ent. Stud., Misc. Pap. 143: 7 (nom. nov. pro *neglectus* Dantchenko, 2000 *neglectus* Stradomsky & Arzanov, 1999). Type: Armenia: Migry.

Remarks: As the name *neglectus* Dantchenko, 2000 was junior primary homonym of *neglectus* Stradomsky & Arzanov, 1999; a replacement name *ihmal* was proposed by the authors in 2008. So far, this name has been neglected using as valid¹⁵.

Range: Armenia.

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¹⁵ <https://www.nic.funet.fi/pub/sci/bio/life/insecta/lepidoptera/ditrysia/papilionoidea/lycaenidae/polyommatae/polyommatus/index.html>

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